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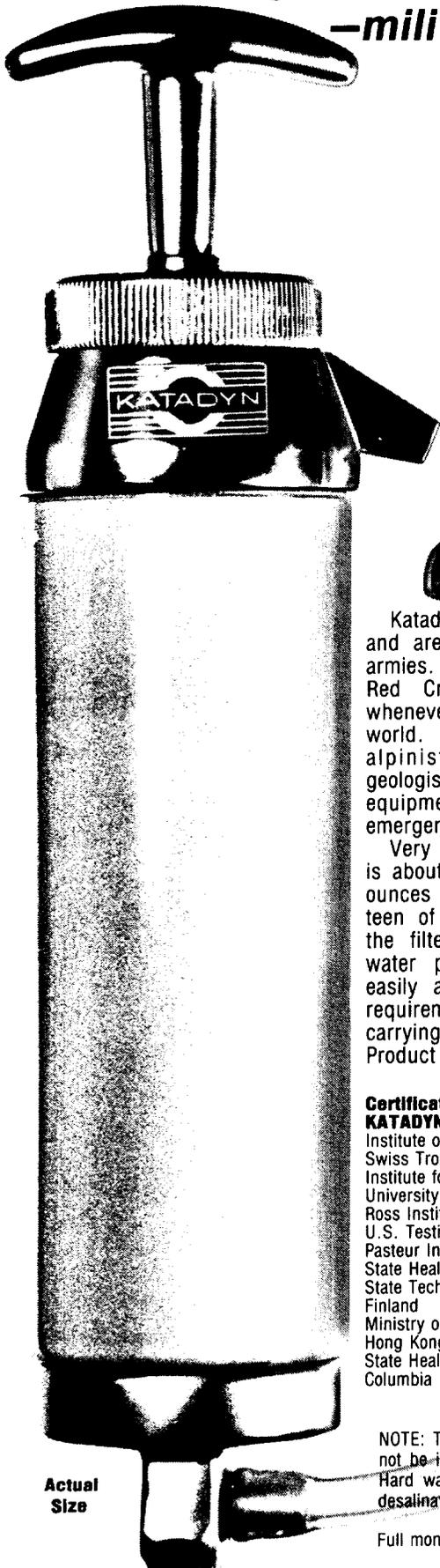
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CIVIL DISASTER IN THE MAKING

Representative William Dickenson (R-AL) must have had a premonition of what was to come when he got the House unanimously to pass an amendment to the civil defense authorization bill changing the name of the Federal Emergency Management Agency to the Civil Disaster Agency. What has happened to the civil defense appropriation from that day on has been a complete disaster. Despite the request of the Reagan Administration for a big increase in CD funding (from \$134 million this year to \$252 million starting October 1st), the action in the Congress added up to the same old story: little or no increase in a budget that is near a thirty-year low. Once again, the Federal government has successfully avoided confronting the issue of civil defense in the nuclear age.

The Reagan civil defense initiative, which was to implement Title V of the Civil Defense Act and spend well over \$4 billion to do it over the next seven years, began to flounder early on when the Senate Armed Services Committee, chaired by John Tower (R-TX), cut the authorization for the next fiscal year to \$144 million, an amount that just kept the program abreast of inflation. Despite Republican control of the Senate and a majority leader, Howard Baker (R-TN), who had been a civil defense advocate, the reduced authorization easily passed the Senate. Realizing belatedly that the civil defense program was in dire straits, the Administration turned for help to the House Armed Services Committee, which had been goading the President to do more in civil defense for several years. The committee obliged by reporting out the full \$252 million that had been requested.

The House debate on the defense authorization bill began on July 19 and went on for ten days. Ultimately, as reported in the last Journal, an amendment by Representative Edward Markey (D-MA) to cut the civil defense authorization to the Senate level was defeated. That, however, was the high-water mark for the civil defense side. The two authorization bills went to Senate-House conference to resolve their differences. If the conference split the difference, the civil defense authorization would have been about \$200 million and there was some talk that the Senate conferees were now ready to see it the President's way. But that was not to be. The Senate conferees refused to budge and finally, just before the August recess, the agreement was reached to allow \$152 million, much closer to the Senate figure than to that of the House. The Senate conferees on this subject were John Warner (R-VA) and Henry Jackson (D-WA); those on the House side were Jack Brinkley (D-GA) and Donald Mitchell (R-NY). Why a more reasonable compromise was not reached is not yet known but the conference agreement, although still to be approved, puts a cap on the amount that can be appropriated.

The minimum budget is represented by the \$133 million contained in the House appropriations bill for HUD and independent agencies. Representative Edward Boland (D-MA), who chairs the subcommittee, put himself on the record the past two years as being willing to support a serious civil defense effort if it was clearly the will of the Congress and the President. Surely the

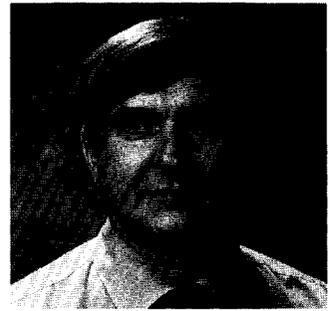
Reagan proposal was a serious one and passage of Title V of the Civil Defense Act in 1980 as well as the 240 to 163 defeat of the Markey amendment to the authorization measure had indicated the will of the Congress. Nonetheless, Boland showed his true colors by abandoning his pledge on the grounds that the Reagan proposal was "seriously flawed." Whereupon, the subcommittee report babbled out all of the weary canards that had been pressed on the Congress by the Physicians for Social Responsibility, Ground Zero, and others; canards that had been presented by Markey and others in the authorization debate and rejected.

The appropriations act is not likely to be passed until well after the November elections. After passage by the House, the measure will also need to go to conference. The Senate appropriations subcommittee, chaired by Senator Jake Garn (R-UT), has marked \$180 million for civil defense, an amount of historical interest only in view of the authorization of only \$153 million. Thus, the choice is between \$153 million and \$133 million. The higher figure represents a small increase (about 8 percent) in civil defense funding after inflation is accounted for; the lower figure represents a real decrease of about the same amount. The compromise amount might very well be about \$145 million, which would leave civil defense at the same level as this year.

Meanwhile, back at the Civil Disaster Agency or whatever, the Director and his senior staff ought to give some thought to what went wrong this year and what to do about it. Was the main problem the ineptness of the Agency's program presentation to the Congress? The inability of the Agency and its proponents to deal with the attacks of the left-wing peace groups? The fragile support given the program by the White House? The existence of opposition in the Office of Management and Budget and the Department of Defense? The lack of support and occasional outright opposition on the part of State and local civil defenders (to give them credit where credit may not be due)? Or all of the above? The easy way out will be to abandon the quest and seek to emphasize peacetime relevance. If that occurs, it is likely that any chance for a real civil defense capability will have been lost for the rest of this decade.



A first necessary step in understanding the unsettling complexities of international politico-military developments is a familiarity with weapons technology and measures to defend against such weapons. Nuclear scientist and strategist Carsten Haaland in this first of three articles expertly reduces the highly technical weapons picture to layman's language.



Carsten M. Haaland

I. DEVELOPMENTS IN STRATEGIC NUCLEAR WEAPONS*

— Carsten M. Haaland
Oak Ridge National Laboratory

Strategic Weapons and Nuclear Weapons

Strategic weapons are defined as those intended to destroy the military potential of an enemy. In modern warfare the military potential has come to mean not only military airfields, bases, missile launchers, seaports, and factories which make military goods, but also the people who work in the factories and the people and industries which support those factories. The most effective weapons for destroying a nation's military potential are missiles armed with nuclear explosives. Five countries (Britain, China, France, the Soviet Union, and the United States) are known to have these weapons at the present time, and the number of weapons is steadily increasing. Furthermore, improvements are continually being made in the reliability and accuracy of their delivery, as will be discussed later.

Every country that has strategic offensive weapons also has an arsenal of tactical weapons. By definition, tactical weapons are those used by military forces in battle. Tactical weapons include small arms, artillery, small nuclear weapons, and possibly biological and chemical agents. Soviet tanks captured in Israel were found to be well equipped to do battle in a chemical warfare environment.¹ The Soviets do not dismiss the possibility of a "large-scale" resort to chemical weapons, both in tactical war operations and against civilian populations in the rear areas.² It is unlikely that chemical agents would be used as *strategic* weapons against the U.S. for several reasons: (1) countermeasures can be nearly 100% effective; (2) weapons effectiveness can be destroyed by wind or rain; (3) manufacturing machinery is not damaged by anti-personnel chemical agents; (4) delivery of chemical agents by ICBM is inefficient (although easy); and (5) total damage per pound of chemical agent is less than that of nuclear weapons.

Independently Developed Missile Systems

Five countries which have independently developed missile systems with nuclear warheads were mentioned earlier. At least nine countries (Argen-

tina, Brazil, Egypt, India, Iraq, Israel, Pakistan, South Africa, and South Korea) are thought to either have or be trying to acquire nuclear weapons.³ At least twenty additional countries have the technological means to enter the nuclear club but, for one reason or another, have not chosen to do so.⁴

India exploded a nuclear weapon in 1974 and may resume development now that Indira Gandhi has returned to power. Many believe that Israel not only has a stockpile of nuclear weapons but also has short-range missiles to deliver them.⁵ A bright flash of light in the Southern Hemisphere in the fall of 1979 was reported by CBS to be "an Israeli nuclear test, conducted with the help and cooperation of the South African government."⁶

PAKISTAN . . . NEXT MEMBER OF THE NUCLEAR CLUB? ?

In 1979, Pakistan was found to be surreptitiously buying parts in Europe for a centrifuge enrichment plant capable of producing weapons-grade uranium and to be acquiring equipment for plutonium recovery. Speculation exists that this Islamic country, perceiving a nuclear threat from India, will become the next member of the nuclear club.⁷

The remaining five of the above list of nine countries have made various deals for nuclear materials or equipment which have aroused suspicion that they are interested in developing nuclear weapons.⁸ The committee on International Fuel Cycle Evaluation has estimated that the amount of weapons-grade plutonium in the world's spent fuel would increase seven-fold by the end of the decade, to 500 tons or enough for 45,000 bombs.⁹

Breeder reactors now operating in France and Russia produce tons of plutonium each year. Developments in uranium isotope separation by chemical means, centrifuge technology, and laser-assisted separation will make the process of uranium enrichment (increasing the ratio of U-235 to U-238) economically accessible to smaller

countries. As the U.S. attempted to limit the availability of fissionable materials or the technology for producing them to developing nations, these nations have gone elsewhere to obtain them. It will soon be cheaper and easier to gather and process the nuclear materials for making a nuclear weapon than it is to deliver it by rocket. Despite these developments, the greatest threat to the U.S. population from strategic weapons will continue to be from those of the Soviet Union, because of their much greater arsenal, but the use of nuclear weapons may be made more likely by the possession of these weapons by others.

Technical Developments in Soviet Missiles by the Soviet Union

There have been two significant technical developments in Soviet missiles in the last few years. One is the deployment of MIRVs (multiple independently-targeted re-entry vehicles), and the other is a substantial and continuing improvement in the accuracy of their delivery. With these improvements, the number of military targets subject to destruction by Soviet missiles has rapidly increased by a factor of three or greater, without violating any SALT agreements.¹⁰

Before these recent developments, a single Soviet rocket, such as the SS-18, could only have been effective for counterforce use with a single, very powerful nuclear warhead with a yield of from 18 to possibly 50 MT.¹¹ This warhead might have been relied upon to destroy one Minuteman rocket in its silo in the U.S. if it landed within a few *thousand* feet of the silo.

With the new developments, that same single SS-18 rocket can shoot a large "bus" into the vacuum outside the earth's atmosphere where it will discharge six to eight "passengers" or warheads at precisely determined locations. These multiple warheads will then proceed on independent paths to targets which may be separated by as

*Derived from research jointly sponsored by the Federal Emergency Management Agency and the U.S. Department of Energy under contract W-7405-eng-26 with the Union Carbide Corporation.

much as several hundred miles. The warheads in these MIRVs are much smaller than the single warhead they replace. They are rated at 0.6 to 2 MT by the British International Institute for Strategic Studies — 46 to 153 times more powerful than the Hiroshima A-bomb. Because their accuracy has been increased so they will land within a few hundred feet of their targets, the replacement missiles are each more deadly to a Minuteman silo than their larger predecessor. By deploying MIRVs with much improved accuracy and reliability, the 308 Soviet SS-18 rockets with a possible total of 1848 warheads become potentially capable by themselves (without counting on the approximately 1100 remaining land-based Soviet launchers) of destroying the entire U.S. land-based strategic missile force, both the Minuteman and the Titan complexes.

Cruise Missiles

Ballistic missiles are shot up above the atmosphere where they coast in a long, free-fall trajectory around the earth to their target. In contrast, the cruise missile has stubby wings and flies through the air at low altitudes, propelled by an air-breathing gas turbine (turbofan) engine. Back in the 60s, the Soviets deployed cruise missiles on some of their submarines. About three hundred of the old SS-N-3 Shaddock cruise missiles are still deployed, according to the Institute for Strategic Studies.¹¹ These were and still are regarded as minor threats by the U.S. strategic community because they are big and slow (a few hundred miles per hour) and their range is only a few hundred miles. Their submarine launchers would have to come dangerously close to the U.S. in order to attack U.S. targets. It would be expected that the guidance systems for these missiles would be routinely updated to the best available. They remain a threat to some targets.

The new breed of cruise missile now going into production for the U.S. B-52G bombers, the ALCM (Air Launched Cruise Missile), is a very sophisticated weapon. The revolution in microelectronics, an area in which the U.S. still remains slightly ahead of all other countries, has made possible almost unbelievable capabilities in the ALCM. A computer with capabilities which would have required a large room full of equipment just 15 years ago is carried onboard in a compact package. The ALCM flies just a few hundred feet off the ground, rising up over hills and going around such obstacles as towers and stacks. It travels at just under the speed of sound (which is about 750 mph) for distances up to 1350 miles.¹² When it gets in the vicinity of its target, it uses radar to examine the terrain and match what it "sees" with the preprogrammed memory of the target-area

terrain in its computer. It then uses this terrain-matching capability to home in on its target. With this technology it becomes possible to deliver a 200 KT nuclear warhead¹³ with high accuracy, possibly within a few tens of feet of its designated target.

In advanced ALCMs, the computer can be programmed to give the missile greater "intelligence," including the capability to avoid anti-missile defenses, evade attackers, apply countermeasures against them, and seek alternate targets if the path to its first-priority target becomes blocked with too many defenses.¹⁴ Defense measures make the missiles almost invisible to overhead, ground-searching radars mounted in large aircraft. The range of future ALCMs may be extended to 2600 miles¹⁴ so the carrier bombers can release them well out of range of Soviet interceptors. Cruise missiles are cheap in comparison with ICBMs or SLBMs (Submarine Launched Ballistic Missiles). Ballistic missiles cost tens of millions of dollars each, not counting the cost of the warhead; whereas, the cruise missile costs around a million per "bird," again not counting the warhead. Boeing has contracted to produce 3418 missiles by 1990.

One of the many technological advancements in the Boeing ALCM, called the AGM-86B, is the low maintenance requirement. The propulsion fuel is sealed in the missile during manufacture so that, under normal circumstances, only one fuel replacement operation should be necessary in a 10-year period. The maintenance concept for these ALCMs calls for them to be treated much as a round of ammunition would be handled.¹⁵ Imagine an "intelligent" round of ammunition seeking and finding a small target 1300 miles away in less than two hours, and packing the wallop of 200,000 tons of TNT!

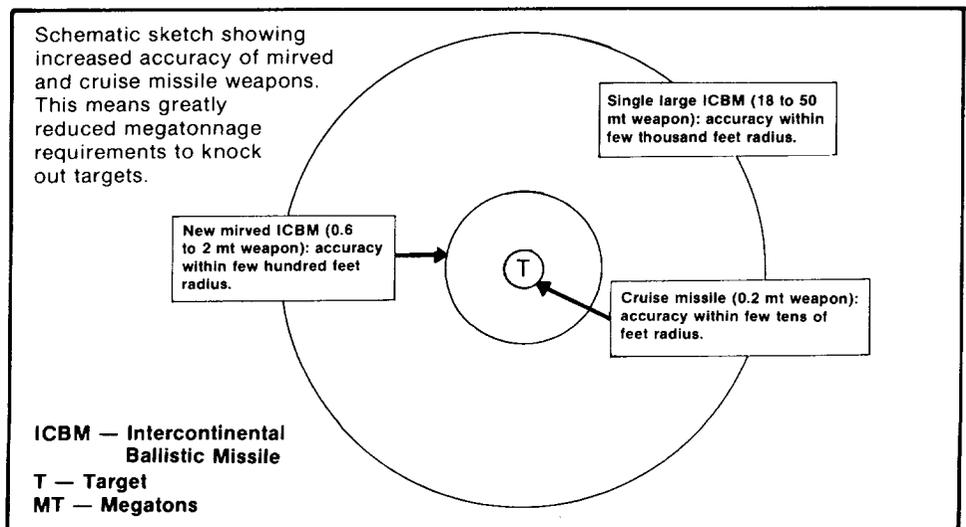
The advanced technology implicit in the microelectronics of the AGM-86B appears to be usefully beyond Soviet production technology at the present time. But recent evaluation of a Soviet

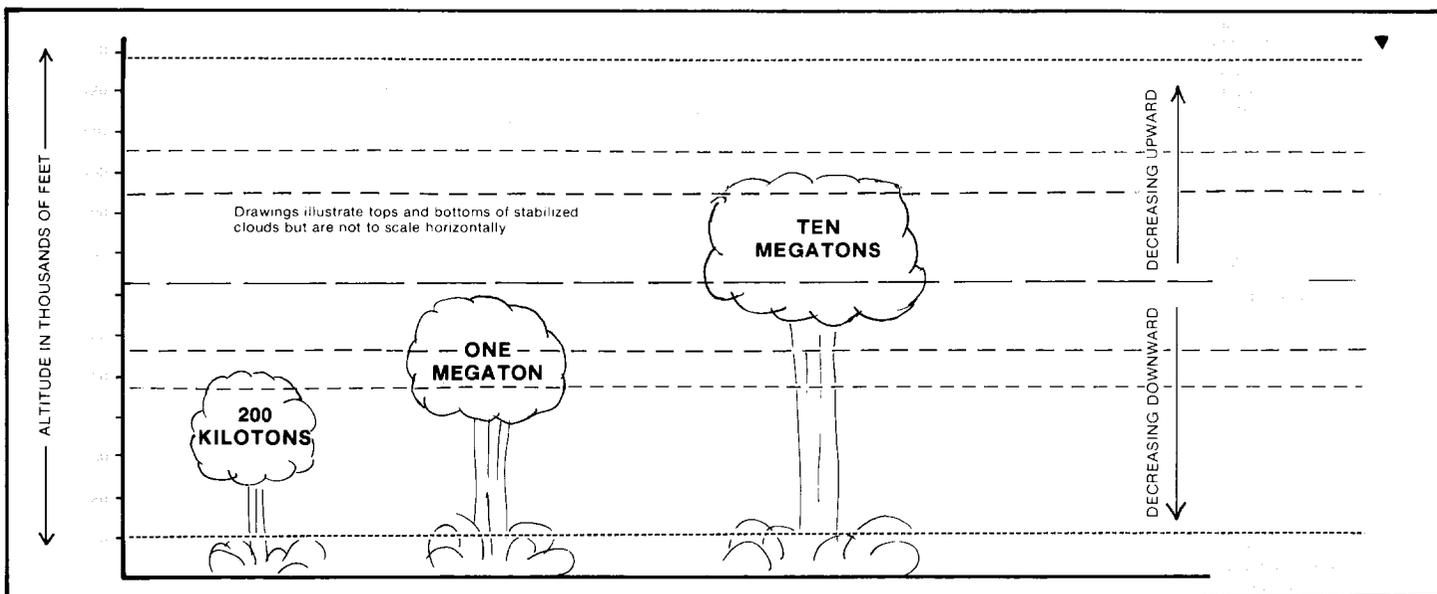
microelectronics "chip" provided "dramatic evidence that the Soviets are no more than three years behind the U.S. in semiconductor technology."¹⁶ It may be only a few years before they begin to test an equally advanced cruise missile, perhaps with additional features of their own.

Implications of New

What do these developments in MIRVs and cruise missiles mean for civil defense? For the next three to six years, the deployment of these new developments will make civil defense easier for two fairly obvious reasons, and a third less obvious reason. First, the total megatonnage and hence the potential amount of radioactive fallout might be greatly reduced. For example, if the 18-50 MT warhead in the Soviet SS-18 were replaced by six 0.6-2 MT warheads, there would be a reduction in megatonnage by a factor of 4-5. Second, there will be less spillover (collateral damage) of blast and fire into civilian areas near military targets. The destruction of military targets can become more like a surgical operation, with very little damage to surrounding tissue and organs.

The third reason requires some discussion. A study by the National Academy of Sciences in 1975¹⁷ alarmed many people because it suggested that a nuclear war involving thousands of nuclear explosions, most of them in the 1-2 MT range but with 500 to 1000 in the 10-20 MT range, would cause worldwide effects lasting several years. The detonation of large nuclear weapons would dump tons of dust and nitrogen oxides into the stratosphere. The study suggested that one of the worst worldwide effects might be the depletion of the ozone layer for several years. The ozone layer filters out ultraviolet radiation from the sun. A depleted ozone layer would result in a large-scale damage to plants and burns on exposed humans and animals. Studies at Law-





rence Livermore Laboratory¹⁸ have since indicated that this problem may be less serious than originally suggested.

The height to which the cloud of dust and nitrogen oxides from the detonation rises depends on the size of the nuclear weapon. A 20-MT detonation on the ground will produce a cloud from 20 to 30 km in height, which is just the range of altitudes through which the ozone concentrations are the highest. The cloud from a 0.6-MT detonation on the ground will extend upward only 10 to 16 km — mostly below the ozone layer. Weapons smaller than a megaton might be expected to have a barely detectable effect on the ozone layer. Detailed computer calculations using more advanced models than those used in the National Academy study have shown that 10,000 megatons exploded as forty-thousand 250-KT devices would have almost no effect on the ozone layer.²⁰

If modern technology reduces the size of the weapons to less than megaton yields, the danger of worldwide ozone depletion will be much reduced, perhaps eliminated. Removal of this danger will make recovery much easier.

Suppose that the Soviets continue to multiply the number and effectiveness of their strategic warheads (MIRVs) through reduction in size and improvements in accuracy. Their existing number of land-based launchers could be developed to loft twenty to thirty thousand of these newer nuclear warheads to any target in the United States. How long would this development take?

According to the International Institute for Strategic Studies,¹⁰

"The relentless pace of Soviet military expansion continued in 1979, defense expenditure again rose by 4-5% in real terms. The American Central Intelligence Agency increased its estimate of the defense burden of the Soviet economy, putting it at 15% of GNP in

1975, and expecting it to rise to 18% in 1980.

In the strategic forces category, SS-17, SS-18 and SS-19 ICBMs continued to be deployed at a rate of about 125 launchers a year . . . The total number of Soviet (land-based) strategic nuclear warheads deployed increased during the year by about 1000 to 6000."

If this growth rate of 1000 strategic nuclear warheads per year were to remain constant throughout the coming decade, the Soviets' ICBM force would reach a level of 16,000 strategic nuclear warheads. Henry Kissinger recently stated,

"The total number of Soviet warheads, including SLBMs (Submarine-launched Ballistic Missiles), will approach 12,000 in 1985 as compared to 8,000 at the time of the SALT signing."²¹

The Soviets have surprised us again and again with their dedication to technical developments and deployments. Our intelligence establishment over-estimated the time required for the Soviets to explode an H-bomb, discounted the idea of their launching a satellite (remember Sputnik!), and has consistently under-estimated their ability and intentions to deploy ICBM and MIRV, and to improve significantly the accuracy of their delivery. The process of conversion of large warheads to MIRVs could accelerate, and in 3-5 years we may be surprised again when we discover that the Soviets have rapidly acquired a force of tens of thousands of strategic nuclear warheads on ballistic missiles. The effectiveness of civil defense against such an arsenal will be discussed in the second article in this series ("How Effective Can Shelters Be?"). □

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SPOTLIGHT

CORRECTION

In reporting on a new "Folding Tanker" in the Journal's August 1982 issue the address was inexpertly jumbled. Here's the story with the correct address and phone number:

NOW AVAILABLE: THE FOLDING TANKER!

If you've been worried about allocating a municipal parking lot or a few big barns for emergency water tanker storage how would you like to settle for an 8 x 8 closet?

The Avon Rubber Company Ltd. (England) specializes in collapsible, portable rubberized tanks which store somewhat like winter blankets. A 10,000-liter (2,640-gallon) tank, for instance, fits into a space about 4-ft x 3-ft x 6-inches.

The Avon folding tanks come in sizes of 1,000 liters to 100,000 liters. They accommodate not only water but anything that will flow. No chemical tastes, long life, low cost. Special harnesses can be supplied. A wide range of CD and shelter uses. For full information contact: Allied Defense Industries, Inc., 6723 Whittier Ave. (Suite 305-D), McLean, VA 22101. Phone: 703-734-9626.

WORRIED LOS ANGELES CRITIQUES ITS CD PREPAREDNESS

In a 60-page report the Los Angeles County Chief Administrative Officer has responded to Board of Supervisors concern about the county's civil defense readiness. Gist of the report: the county is far from ready and badly needs to gear itself to an effective preparedness posture.

Much has been done, and done well, by dedicated experts to prepare for disasters, especially those in the moderately severe range. "However," the report states, "more efforts are needed by the public and private sectors to prepare for catastrophic earthquake or nuclear attack. While it will never be possible to be totally prepared for such a catastrophic disaster, much can be done in developing plans for preparedness and operational coordination to reduce the potential

damage, injuries and deaths which can reasonably be expected to result from such events."

Among improvements contemplated are the use of computer technology, modern communications, public education, a new emergency operations center, damage reporting and medical response at disaster scenes.

Eleven million people live within a radius of 60 miles of downtown Los Angeles and there are 82 incorporated cities in Los Angeles County alone. Add to that the disturbing fact that the megalopolis is hemmed in by the Pacific Ocean on the West and mountains inland.

A serious effort has been made and is being made to help to federal and state civil defense goals, "but here, as throughout the nation, the program has been less than adequate for the needs. . . Few people who live and work in the greater Los Angeles area have suggested that the crisis relocation program, as currently presented, is a workable solution for this area."

The state CD director agrees "and has indicated that continuing evaluation may bring special solutions to help resolve the extraordinary problems."

Possibilities of supplementing the crisis relocation with anti-missile defense and blast shelter are also covered.

"Whether an adequate civil defense can be achieved," emphasizes the reports, "depends primarily on the level of national commitment. Federal leadership, focus and funding are essential. Protection against nuclear attack requires a strong national program; an informed public, essential systems in place and a crisis 'surge' capability to increase readiness quickly."

(See also "Los Angeles Wary of CRP . . ." in July issue of the *TACDA Alert*.)

THE SURVIVAL CENTER SELLS SURVIVALISM

Mark Weisz is a survivalist and marketing director for The Survival Center in Ravenna, Ohio. The media

aren't too interested in 29-year-old Mark as a survivalist, however, because he doesn't even own a gun. More than that, he's a vegetarian.

He's a real survivalist nonetheless. And The Survival Center markets a line of shelters, shelter equipment and emergency foods that doesn't seem to stop. Shelter kits (for an 8' x 16' corrugated steel shelter) start at \$5,395, and the unfurnished shelters assembled at \$7,645. "The Survival Center Catalog and Resource Guide" (\$2.50) lists foods and survival products — and some very good advice.

The Survival Center is located a little bit southeast of Cleveland and east of Akron. Its address: 5555 Newton Falls Rd., Ravenna, OH 44266. Ph. toll-free: 800-321-2900.

The Survival Center is exhibiting at TACDA's Wichita Seminar and will display a fully-equipped full-size shelter.

MOORE MOVES IN AS USDC EXECUTIVE DIRECTOR

From new United States Civil Defense Council (USCDC) national headquarters in Columbia, South Carolina* Tommy C. Moore announced plans for fiscal year 1983:

"As the incoming USCDC Executive Director," said Moore, "I urge that all those with an interest in effective protective measures for the American people give their support to USCDC and unite to promote a civilian defense that will in effect do what the name indicates — protect civilians.

"I pledge my dedication to USCDC objectives and to service to the USCDC membership in seeking desired solutions. Our national survival demands that all of us who support realistic protection for our families and for our country unite in bringing it about in a timely and efficient manner that will serve the traditional interests of the U.S.A.

"At this point in our history nothing less can be tolerated."

*at 3126 Beltline Blvd., Suite 101, Zip 29204.

Many of today's church leaders, in their hunger for peace, fall into propaganda traps that work diametrically against this goal. Richard E. Sincere's analysis of their illogic points up the requirement: "to educate the American citizen about the moral and political imperatives of strong nuclear deterrence policies." The most effective deterrent: civil defense.

(Sincere is research assistant for church and society at the Ethics and Public Policy Center and serves on the faculty of Georgetown University Summer School, both in Washington, D.C. His article "Morality and Arms Sales" appeared in the Summer 1982 issue of *The Forensic Quarterly*.)

— Richard E. Sincere, Jr.

Synthesizing the worst aspect of the appeasement movement is Catholic Archbishop Raymond Hunthausen of Seattle, who has referred to the Trident submarine base near his home as "the Auschwitz of Puget Sound;" he neglects to point out, of course, that no one has been killed by a Trident submarine, while the ovens at Auschwitz stand as a chilling monument to human depravity. Archbishop Hunthausen has withheld 50 per cent of his income taxes to protest spending on nuclear weapons, a reasonable form of civil disobedience, yet military spending is not even 25 percent of the federal budget. Finally, Hunthausen told the *Denver Catholic Register* that if unilateral disarmament caused Soviet domination of the United States, "then as a Christian people, that's our crucifixion. That's what our Lord did. He could have called down angels to protect him . . ." Is self-inflicted tyranny the calling of a Christian?

Hunthausen explains that he has been heavily influenced by Jesuit theologian Richard McSorley, a pacifist who said several years ago that "the taproot of violence in our society is our intent to use nuclear weapons."² That statement reveals the illogic of the churches' response to the nuclear threat: they have

reversed *cause* and *effect* and have mistaken the *symptoms* for the *disease*. Instead of addressing external dangers and the causes of conflict (e.g., Soviet expansionism, ideological rivalries, greed, revanchism, irredentism, *et al.*), they argue that weapons alone cause war. The absurdity of that approach was eloquently exposed by British Prime Minister Margaret Thatcher before the United Nations Special Session on Disarmament: "The fundamental risk to peace is not the existence of weapons of particular types. It is the disposition on the part of some states to impose change on others by force."³

Moralism vs. Ethics

At the root of the clerical misinterpretation of the politics of nuclear weapons, and thus the foundation for their lopsided contribution to the nuclear debate, is a misunderstanding of the ethics of war and peace. Church leaders here and abroad concentrate on making moralistic pronouncements with little regard to the rich ethical tradi-

tion of their religious heritage.

Ernest W. Lefever is one scholar

who has identified this strange dichotomy:

Morality or ethics . . . is an individual and social discipline that relates ends to means. *Moralism* is a sham morality, a partial ethic. Often it is expressed in self-righteous or manipulative symbols designed to justify, enlist, condemn, or deceive rather than to inform or inspire, or to serve the cause of freedom, justice, or peace. Intellectually flabby and ethically undisciplined, moralism tends to focus . . . on sentiment rather than reason . . . Morality is the acceptance of responsibility. Moralism is a conscious or unconscious escape from responsibility.⁴

When Catholic bishops or other Christians allow sentiment to rule over reason, they divert attention from the central issues of how to prevent nuclear war. Archbishop Hunthausen may withhold his taxes; Archbishop Leroy Matthesen of Amarillo may counsel workers to quit the nuclear-weapons assembly line; activist Mitch Snyder may fast for weeks to force the Navy to rename the submarine *U.S.S. Corpus Christi*; but their actions remain counterproductive. Symbol triumphs over substance.

Church leaders abandon responsibility when they generalize about nuclear weapons or international conflict. They allow sentiment and half-truths to smother serious re-



Richard E. Sincere, Jr.

search. Like their secular counterparts church leaders too often rely on "truth by repetition" in advancing their cause. Since they have heard 10, 20, or 100 times that 95 per cent of the population of Nagasaki was killed by blast or fallout, it must be true. Yet anyone who bothers to look up the facts knows that there was no appreciable fallout at Nagasaki and less than 35 per cent of its people were casualties of the atomic bomb.

Moralistic and Irresponsible Analysis

The United Presbyterian Church's 193rd General Assembly in 1981 issued a "Call to Halt the Nuclear Arms Race,"⁵ one of the earliest endorsements of the nuclear freeze. The "Call" represents what Michael Kinsley has called the "bad poetry" of the peace movement: it lacks documentation and relies instead on hyperbole and sentimentality.

The call says, for example, that "the nuclear programs of the next decade, if not stopped, will pull the nuclear tripwire tighter." Such a statement either displays ignorance or deliberately ignores the commonly accepted belief that the threat of nuclear war was strongest twenty years ago (at the time of the Cuban Missile Crisis) when the United States enjoyed considerable and recognized superiority over the Soviet Union.

The Presbyterian statement does some remarkable mathematical juggling. It asserts that of the 50,000 warheads possessed by the super-

powers, "a fraction of these weapons can destroy all cities in the northern hemisphere." A slight exaggeration, perhaps; they go on to argue that "by shifting [nuclear-weapons] personnel to more labor-intensive civilian jobs, a nuclear weapons freeze could also raise employment." How can a *shift* of the same number of workers create new jobs for additional workers?

"A total freeze can be verified more easily than the complex SALT I and II agreements," argues the Presbyterian statement. Yet that verification must be insured without international legal mechanisms, because only "following the immediate adoption of a freeze" should its terms "be negotiated into the more durable form of a treaty" [emphasis added].

The Presbyterian statement is charitable, if contradictory. It implicitly assumes that neither side has an incentive to cheat on a weapons freeze agreement. In fact, they say that "the risk of detection would be considerable" and "any cheating would produce only a small amount of weapons." Yet earlier they argue that only one warhead "would result in 220,000 immediate deaths and half a million injuries with 70 square miles of property destruction." If this is the case, then surely a "small amount" of weapons will give the cheater at least a slight advantage, given the stated "existing nuclear parity between the United States and the Soviet Union."

BANALITIES OF PEACE MOVEMENT RHETORIC

On May 16, 1982, the Council of Bishops of the United Methodist Church issued a pastoral letter which condemned nuclear weapons and endorsed the nuclear freeze. Replete with the banalities of peace movement rhetoric, the letter said this concerning verification: "Realizing that the superpowers do not trust one another, the serious negotiations called for should be based on mutual self-interest and a commitment to a global future."⁶ If the superpowers "do not trust one another," how could they ever come to agreement about their "mutual self-interest"? Is not verification a substitute for trust? From whose ideological perspective do we commit ourselves to "a global future"?

Irresponsibility sank to new depths on June 12, 1982, when the Catholic Theological Society of America (CTSA) adopted an official statement of their "conviction that the use of nuclear weapons, under any circumstances, is contrary to the will of God. While there may have been just wars in the past, the inability to place traditional constraints on nuclear war now makes any moral justification impossible."⁷ Three aspects of this statement merit attention:

First, it presumes to peer into the mind of God and to know God's convictions regarding any use of nuclear weapons, an impertinence at best. Second, it lacks political and strategic judgment, in fact pre-judging an unknown, by implying that nothing could restrain the unlimited escalation of nuclear war. Third, the full text of the CTSA statement was lifted almost *verbatim* from an earlier statement from the faculty, staff, and students of Harvard Divinity School. According to reports, "when the text came up for discussion at the CTSA meeting, members were handed xeroxed copies with 'Catholic Theological Society of America' simply scribbled in at the appropriate place."⁸ As one writer commented, "the statement, then, is not the product of a scholarly commission of inquiry. The CTSA engaged in no serious or long-term study of the question."⁹

The CTSA "statement" should be an embarrassment to the entire academic community. Unfortunately, it is representative of the whole appeasement movement, which seeks to justify its call for unilateral disarmament and nuclear pacifism by attaching impressive lists of names to its petitions and by citing moral and scholarly authorities who support its goals, whether with prudence and conviction or not.

Responsible Analysis Still Exists

All is not lost. Serious scholars of all faiths are taking notice of the disarmament campaign and have prepared solid moral and intellectual defenses of the just war tradition and nuclear deterrence. Just as prominent Roman Catholic bishops are in the *avant-garde* of the appeasement movement, respected Catholic theologians and political scientists are among the first to take sound positions rooted in standards of reason, morality, and political prudence.

George Weigel, a theologian at the World Without War Council of Greater Seattle, identified a central deficiency shared by most participants in the peace movement: They believe all peace advocates approach war and nuclear weapons

'better to be red than dead'; it is better to be neither."¹²

Concluding Reflections

Religious opposition to Western nuclear weapons policies presents a formidable challenge to prudent decisionmakers. Like their secular allies, religious leaders hold the most effective tools of persuasion in the public forum: symbol, satire, and sentiment, plus one more, the appeal to moral and even transcendent authority. Those of us who rely on reason, research, and serious analysis must work even harder to educate American citizens about the moral and political imperatives of strong nuclear deterrence policies.

Among the tasks we face is the strengthening of a cogent defense of emergency preparedness, which has withstood some hard blows in recent months. In their fear-stricken efforts to "prevent" nuclear war, religious groups have struck out against civil defense. John Carr, secretary for social concerns of the Catholic Archdiocese of Washington, testified before a congressional committee that the United States should devote no resources to civil

issues with equal sincerity and equal competence. But this isn't necessarily so, says Weigel, "the hard problem we face is that there are ways to raise concern over the arms race (for example, by appealing primarily to a politics of fear) that make it harder, not easier, to gather America for the task of leading in progress toward an end to war. The necessary job is to couple legitimate concern with sophisticated political strategies capable of gaining arms reductions."¹⁰

Michael Novak, resident scholar in religion and public policy at the American Enterprise Institute, writes that if the cries of the peace bishops are taken to their logical extreme, a moral and political dark age will be the consequence. "The bishops seem to be willing . . . to accept submission, as Eastern Europe has done since World War II. This they demand in the name of 'faith' and 'citizenship.' Yet this cannot be the demand of Catholic faith or of the American experiment in liberty."¹¹ Novak argues that "those who choose deterrence do not choose less than the highest human values; they choose the only state of development within which humans would freely choose to live. It is not

defense. He asked, "Wouldn't our efforts be better spent trying to prevent nuclear conflict rather than pursuing the almost hopeless task of how we can defend ourselves against nuclear holocaust?"¹³ In his analysis, Carr fails to consider the peaceful value of civil defense,

which Edward Teller calls "at once the most peaceful and most effective deterrent to nuclear war."¹⁴ Carr further neglects the possible effects of a failure of what he calls the "essential tasks of arms control and disarmament," or the failure of deterrence. In that awful case, where does Carr's superficial analysis of nuclear strategy leave us? Moralistic platitudes will not protect American citizens against blast or fallout.

With confidence in the moral strength of a prudent defense posture, we can sweep away the moral confusion in the nuclear debate. The challenge is strong, but it is not insurmountable. □

Notes:

1. Quoted in *The Wanderer*, April 1, 1982, p. 1.
2. Richard T. McSorley, S.J., "It's a sin to build a nuclear weapon," *U.S. Catholic*, October 1976.
3. "Excerpts from Mrs. Thatcher's Talk," *The New York Times*, June 24, 1982, p. A8.
4. Ethics and Public Policy Center, "A Report, 1980," p. 1.
5. Available from The Peacemaking Project, Program Agency UPCUSA, 475 Riverside Drive, New York, New York 10115.
6. "A Pastoral Letter to a People Called United Methodist," *The United Methodist Reporter*, Baltimore edition, May 14, 1982, p. 1.
7. Cited in "Theology and Politics," *National Catholic Register*, June 27, 1982, p. 4.
8. *Ibid.*
9. *Ibid.*
10. George Weigel, *The Peace Bishops and the Arms Race*, Chicago: World Without War Council, 1982, p. 29.
11. Michael Novak, "Arms and the Church," *Commentary*, March 1982, p. 41.
12. *Ibid.*
13. "Pursuit of peace greater than escape plans," *The Catholic Standard* (Washington, D.C.), June 24, 1982, p. 3.
14. Quoted in "A moral argument for civil defense," *Church World* (Brunswick, Maine), January 7, 1982, p. 4.

"DON'T PLAN TO DIE!"

In an article titled "Don't Plan to Die!" in the August 1982 issue of *Reason* (reprinted from *Survive*) survivalist-CD director Bruce Clayton takes to task Dr. Helen Caldicott of the Physicians For Social Responsibility and other anti-survival writers for their patterns of inaccurate information. Says Dr. Clayton:

"The tragedy is that such misleading information greatly hampers efforts to prepare the nation, or even individual families, to meet the challenges of a postwar period. The true horrors of a nuclear war need not be exaggerated to justify taking every plausible step to prevent such a war. When they are exaggerated, people become convinced that survival is impossible and will not make survival preparations. Because of the myths about nuclear war, these misled believers might very well die in a war or its aftermath even though they could have been saved."

Clayton focuses on Caldicott and quotes her thirteen times in order to cite specific inaccuracies. And he counters her errors with fact.

*Reason** has performed a real service to its readers in bringing Clayton's convictions to light.

**Reason* appears monthly, \$19.50 per year — Box 28897, San Diego, CA 92128.

Veteran survivalist Dick Oster comes up with a refreshingly logical analysis of civil defense and its many problems. Could a serious consideration of this approach help to put the United States on the road to providing a nuclear safe haven for more Americans?

DO-IT-YOURSELF Civilian Defense

— Richard E. Oster Sr.

What is this thing called Civilian Defense? Basically, it is a "system" (Organization, hardware and software) that is used to save Civilian lives and materials in any disaster. The required actions may be taken before, during and after the disaster.

Most U.S. Civilians have no idea of what kind of a Civilian Defense system they need or what is avail-

WHAT SHOULD THE CIVILIAN DEFENSE "SYSTEM" INCLUDE?

able (or what they can make available for themselves — more later). What should the Civilian Defense "system" include? There are many ways to conjure up such a system. The one I prefer is one that has been established by people who have observed the results of such a war or have at least tested Nuclear weapons to see what disaster they can cause. Fortunately, there is at



Dick Oster at his Texas home.

least one group of each of the above kinds of folks. First is the team the U.S. sent to Japan shortly after the Atomic bombs were dropped¹. This group was sent to conduct an impartial and expert study of the effects of aerial attacks during WW II. The team included 300 Civilians, 350 Military officers and 500 enlisted men (60% Army and 40% Navy — we had no separate Air Force at that time). This group talked to 700 Japanese people, acquired many Japanese documents and viewed the results of the bombings of Hiroshima and Nagasaki. The team asked and answered the question "What can we (the USA) do about it?" — speaking of the danger from a similar attack on U.S. cities. Here were their conclusions:

1. BLAST SHELTERS — the most instructive fact at Nagasaki was the Survival, even near Ground Zero, of the few hundred people who were properly placed in the tunnel shelters.
2. DECENTRALIZATION — Deaths in Nagasaki were about half those in Hiroshima because the people were dispersed into what were called "built-up pockets" or protected areas and were not all located in one mass. On the other hand, their medical facilities were centralized, and were nearly all lost.
3. CIVILIAN DEFENSE — They advised that the United States should establish a Civilian Defense agency (and we did in 1950). Two of the programs they suggested we should undertake immediately (that was in 1946!) were:
 - a. Plans for evacuation of the unnecessary inhabitants from the urban areas
 - b. Blast shelters for those who must remain

4. ACTIVE DEFENSE — It was recommended that an *active* defense be maintained in readiness so any potential enemy would be restrained from using Atomic Weapons (likened to the restraint, due to mutual fear, in using both Chemical and Biological weapons).
5. WORK FOR WORLD PEACE — A system of guarantees and controls for world peace was highly recommended.

The second group was a joint Department of Defense and Atomic Energy Commission team. In the early 1960's they published a report² which stated:

THE AMOUNT OF PROTECTION ... RELATED TO THE EXTENT OF PUBLIC KNOWLEDGE

1. The amount of protection, against Nuclear attack, that will be available to INDIVIDUALS will, in large degree, be related to the extent of public knowledge concerning Nuclear Weapons Effects and the associated protective measures and steps taken prior to the attack.
2. A massive, reinforced, fire-proof SHELTER structure is required at close distances (to the explosion) to protect individuals against the severe immediate effects (Blast, Thermal and Nuclear radiations) of a Nuclear explosion. In those areas where early fallout is expected to be a hazard, shelters must be constructed and provisions made for occupying them for a CONSIDERABLE LENGTH OF TIME.

More groups, and lots of individuals, have said a lot more but this should give us the idea of "What is a Civilian Defense System?" and also

NUDE AMONG THE NUKES



— Hesse, (c) 1982, *St. Louis Globe — Democrat*. Reprinted with permission —

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give us a bench mark to check against.

So what has happened? We only have three agencies of U.S. Government (Executive, Legislative and Judicial) so between them what have they done about these recommendations?

1. **BLAST SHELTERS**— None have been built for Civilians (The government has some). Any of the fallout shelter spaces that have BLAST resis-

tance came by it, for the most part, as an accident of construction.

... FAR TOO MANY OF THE FALLOUT SHELTERS WERE LOCATED IN THE BLAST AREAS ...

2. **FALLOUT SHELTERS** — The government did a fallout shelter survey and found 230 million "spaces". (A space is 10 square feet). There was a basic

fallacy in the survey results and the government admits this in DCPA Bulletin No. 305.³ The fallacy is that far too many of the fallout shelters were located in the BLAST areas and far too few were located in the fallout areas.

3. **DECENTRALIZATION** — (Food, fire fighting equipment, medical supplies, emergency water and electrical power supplies, tooling for factory restart) — Essentially none.
4. **RECOMMENDED CIVILIAN DEFENSE PROGRAMS** —
 - a. **EVACUATION** — Finally, in 1973 the pilot programs were started. This program is called CRP (Crisis Relocation Plan).³ The plans for all 50 states are to be completed by 1990! (My note: This may no longer be true as some cities such as Philadelphia, Houston and Boulder, Colo. have rejected the C.D. money for 1982). Remember that this was a requirement in 1946, started in 1973, and MAY be completed in 1990 — programs move slowly.
 - b. **BLAST AREA BLAST SHELTERS** — These are for the people that must remain in place (essential workers, police, fire dept. etc.) — Essentially none.
5. **ACTIVE DEFENSE** — Whether or not we have a good active defense, or are superior to the enemy, or are SAFE (due to such programs as MAD) is an ongoing debate.
 - a. **SATELLITE ANTI-MISSILE DEFENSE** — Both sides are working on this and the winner may be the ruler. The U.S. Bureaucracy and fear of rocking the boat (even in our own defense) seem to be the problem.⁴
6. **WORLD PEACE** — This is a fantastic solution. However, if you examine world HISTORY⁵ you will find:
 - a. In the last 6,000 years we have had only 300 years of World peace.
 - b. Since WW II here have been over 100 wars (and several more trying to get going right now!)
There has not been one day of World peace since WW III!

DO-IT-YOURSELF Civilian Defense

Pretty grim if it is true and you give a damn about Surviving. So what's a Civilian to do? What are your options? You really only have three that are viable. They are:

SURRENDER
DIE
PLAN TO SURVIVE

"The West is on the verge of a collapse created by its own hands. The Soviet economy is on such a war footing that even if it was the unanimous opinion of the Politburo not to start a war, this could no longer be in their power."

— Aleksandr Solzhenitsyn

There is a small group of Civilians that have opted for the "Plan to Survive" scheme. They have created their own DO-IT-YOURSELF Civilian Defense. They understand the eight effects of Nuclear Weapons and can thus defend against them. They have radiation detectors and know how to use and maintain them. They know how to build BLAST and FALLOUT Shelters. (They also know about both Chemical and Biological warfare and how to defend against them even though the government Civilian Defense does not address these two disasters). They also know how to purify water, make fire, forage for food, apply first aid, and provide the many other post disaster necessities of life.

**SURVIVALISTS — WITH A CAPITAL "S" . . .
SURVIVALIST WITH A SMALL "s".**

Who are these "DO-IT-YOURSELF Civilian Defense" folks? Some

BOX SCORE

ITEM	PRESENT STATUS	FUTURE STATUS
1. BLAST SHELTERS	Essentially none	Probably none
2. FALLOUT SHELTERS	230 million spaces but inadequate and many are improperly located	Probably no change
3. DECENTRALIZATION	None	Probably no change
4. EVACUATION (CRP)	Plans in work but will not be completed until 1990 (or for some cities maybe never).	Probably no change
5. ACTIVE DEFENSE	Probably not superior	May be improving — If continued it may be at parity by 1985-90
6. WORLD PEACE	Not available at this time	May never be available
7. STORED SUPPLIES (Food, medical, and rebuild USA material)	None	Probably never will have

call them Survivalists — with a Capital "S". For every disaster (Tornado, black-out, hurricane, fire or Nuclear Attack) there is also a small group of thieves, looters, rapists and murderers who prey on the victims. Unfortunately, they are also sometimes called survivalists — with a small "s". Please do not confuse the two. The former are true Patriots of the U.S.A. The latter are just common criminals.

SUMMARY

We have seen what responsible people have said we need for a Civilian Defense system. When we look at the U.S. Civil Defense program we can readily see that it does not meet the bare requirements. Your options are clear. One of the

choices is a "DO-IT-YOURSELF" approach. You will have to put some time, energy and a little money into it but your life is well worth the effort.

Why don't you consider the "DO-IT-YOURSELF" approach and become a capital "S" Survivalist. □

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2. *The Effects of Nuclear Weapons* (DOC/AEC), revised edition, 1962.
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5. *Civil Defense — Figures, Facts and Data*, Federal Office of Civil Defense, Bern, Switzerland (Booklet 8.79 1500 57842, 1979/80).

NEWSLETTER FORESIGHT JOINS CD PUBLICATIONS

Taking its name from the discontinued but very popular federal CD magazine *Foresight* the new survival-civil defense newsletter *Foresight* made its initial splash in August with a whopping 24-page issue. Editor-publisher Richard E. Oster, Sr. (author of "Do-It-Yourself Civilian Defense" above) has crammed this first issue as well as his September issue with vital survival information that betrays both a vast knowledge of the subject and extensive source materials. Oster was raised in a Texas survival environment, saw six years of aerial combat and air rescue in the U.S. Armed Forces, and recently took early retirement after 28 years as an aerospace engineer.

In the first issue of *Foresight* Oster says "The most disasterous potential at this time, and the one where the government has not done its job, is that of Nuclear Attack on the U.S.A." Oster's first two issues, well-illustrated with photos, charts and tables, zero in on that subject.

At the top of page 1 of each issue *Foresight* is described as "the SURVIVAL NEWSLETTER that explains 'How-to' & 'How-come.'" And that's what it does — exceedingly well.

For more information contact: Richard E. Oster Sr., Editor and Publisher, *Foresight*, 914 Pinehurst Drive, Arlington, Texas 76012.

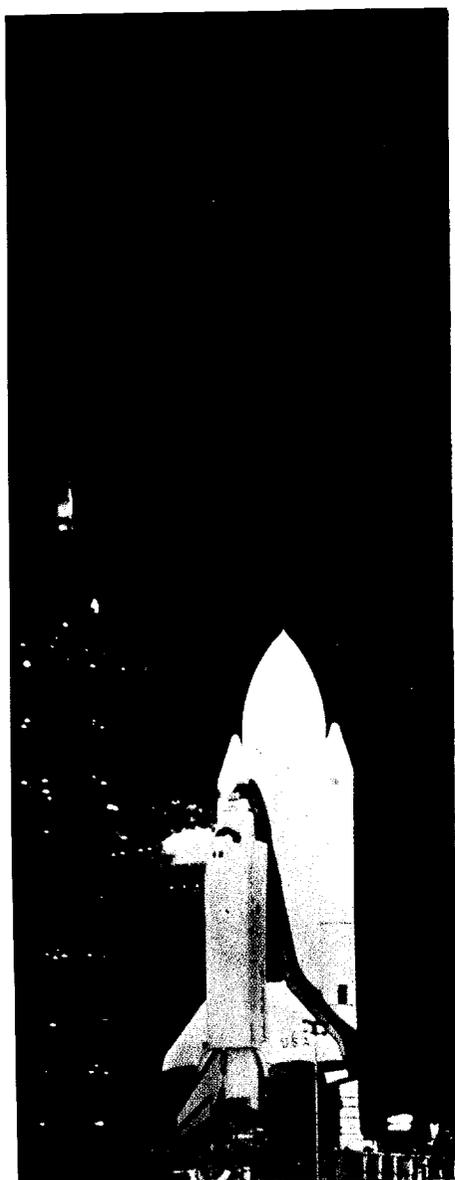
With rabid peacenik attacks on the concept of defending civilians and the resultant building up of interest in the subject there has recently mushroomed in our land the idea that protective measures for the American people are not really dishonorable and are in fact necessary if we take national survival seriously.

There has fortunately blossomed also the related conviction that in disaster situations — wartime and peacetime — the application of disaster medicine practices is a basic requirement if mass casualties are to be cared for effectively and maximum numbers of lives are to be saved. This is the rationale behind a new and comprehensive disaster medicine program at the Florida Institute of Technology.



DISASTER MEDICINE BOWS IN — A FLORIDA RENDEZVOUS

— Kevin Killpatrick



Spaceship Columbia on launch pad at Kennedy Space Center, north of Florida Institute of Technology.

On November 12th this year will begin a 3-day "pilot" disaster medicine seminar at the Florida Institute of Technology (F.I.T.) in Melbourne, Florida — the first of a series of seminars designed specifically to address in a totally functional manner the problem of minimizing fatalities and reducing injuries wherever disasters produce mass casualties.

The course will be conducted by F.I.T.'s recently activated Division of Disaster Medicine which operates as an organic part of the F.I.T. Medical Research Institute. It is programmed to serve the rescue worker, the fireman, the civil defense specialist, the paramedic and lay personnel who need and/or want indoctrination in disaster response methodology. (And also those who instruct in it.)

AGENDA

- Nov 12: Philosophy of Triage
Treatment of Wounds & Bleeding
Prevention & Treatment of Shock
Immediate Treatment of Burns
(Thermal, Solar, Chemical,
Electrical)
- Nov 13: Emergency Treatment of Frac-
tures & Associated Injuries
Transportation of the Sick
& Injured
Heat Injuries & Cold Injuries
Electrical Injuries
Detection & Decontamination of
Radiation & Treatment of
Radiation Injuries
- Nov. 14: General Emergency tips (diabetic
coma, insulin shock, stroke,
venomous bites & stings,
poisoning, etc.)
Resuscitation/CPR
Improvisation of Hospitals in a
Disaster
Emergency Childbirth

Head of the Division of Disaster Medicine is Dr. Max Klinghoffer, author of the current *Journal of Civil Defense* series "Triage — Emergency Care." He will personally conduct the pilot seminar and will organize and supervise 1983 seminars and F.I.T. courses that also will eventually lead to a degreed program in Disaster Medicine.

Disaster medicine, points our Dr. Klinghoffer, is sometimes confused with emergency medicine and first aid. Not to be so. The latter two "are vital medical standbys which themselves need more attention and further development," he says. "And they are not by any means to be neglected in disaster medicine instruction."

Disaster medicine addresses the problem of contending with multiple

casualties with limited resources, a problem which has in the recent past increased dramatically. With new population patterns and concentrations within disaster-prone areas, with increases in air travel, with a tremendous surge in the transportation of hazardous materials and with the growing threat of direct civilian involvement in war scenarios the need for organized response to sudden mass casualty situations is self-evident.

"THE GREATEST GOOD FOR THE GREATEST NUMBER."

"If we prepared for the worst," says Dr. Klinghoffer, "then the disasters and mass casualties that are certain to come with storms, floods, explosions, traffic accidents and the like can be handled in such a manner as to really save a great many lives and to alleviate a great amount of suffering. That's what disaster medicine is all about. It's a field which from medical and moral standpoints every conscientious person associated with emergency services must concern himself."

The objective of disaster medicine in its final analysis boils down to its watchword:

"The greatest good for the greatest number."

Dr. Ronald H. Jones, Director of F.I.T.'s Medical Research Institute (and its co-founder in 1971), active nationally and internationally in the fields of preventive medicine, microbiology and immunology, agrees with Dr. Klinghoffer. "At F.I.T.," he observes, "we have for

"... GROWING NEED FOR FORMALIZING THE STUDY OF DISASTER MEDICINE."

some time recognized the growing need for formalizing the study of disaster medicine. F.I.T.'s educational philosophy is to look to the future, and its curricula adhere religiously to that philosophy. We were delighted with and quick to recognize a golden opportunity in Dr. Klinghoffer's move to Florida, and our plans are now well along to build a disaster medicine center at F.I.T. utilizing his genius and his years of experience in disaster medicine."

Both Jones and Klinghoffer stress the fact that the Disaster Medicine Seminar course content is geared to

(Continued on page 18)



Main campus of Florida Institute of Technology (one of 15 campuses in the United States).

WHAT IS THE FLORIDA INSTITUTE OF TECHNOLOGY?

Florida Institute of Technology (F.I.T.) — the "technology center of the Southeast" — covers in its curricula a remarkably broad spectrum of scientific and technological fields. It is accredited by the Southern Association of Colleges and Schools. It offers nine doctoral programs, sixteen masters programs and forty baccalaureate degreed programs. Particularly prominent among F.I.T.'s intensive research programs is its Medical Research Institute.

F.I.T.'s newly-organized Division of Disaster Medicine creates an ideal environment for disaster medicine research, and the "pilot" disaster medicine seminar of November 12-14 marks a historic beginning not only for future 3-day and 3-week seminars but for a full degreed university program in disaster medicine.

A close working relationship with nearby Kennedy Space Center and 15 F.I.T. satellite campuses across the United States helps to round out an educational institution of unique stature. In bringing disaster medicine to the highest level of study and research F.I.T. will have a profound effect on disaster lethality.

REGISTRATION — DISASTER MEDICINE SEMINAR

To: Disaster Medicine Seminar
 Division of Disaster Medicine
 Medical Research Institute (FIT)
 3325 W. New Haven Avenue
 Melbourne, Florida 32901

Please send information on:

- Hotel accommodations
- Air schedules to Melbourne
- Other _____

Name _____

Address _____ Phone _____

City _____ State _____ Zip _____

Organization _____

MOTEL ACCOMODATIONS AND TRANSPORTATION

Motel reservations in the Melbourne area for the Ramada, Holiday and Days Inns may be made through local representatives of these chains or through applicable toll-free numbers. Each individual registering for the Pilot Disaster Medicine Seminar will receive a

mailed packet of information on area attractions, facilities and accomodations.

Complimentary transportation service between Melbourne Airport and motels is provided as needed by the motels. Rental car service is also available at the Melbourne Airport.

For special information or problems call F.I.T.'s Medical research Institute at 305-723-5640.

(Continued from col. 1 page 17)

the triage, transportation and treatment of *multiple* casualties, but that there is a good amount of overlap from emergency medicine and first aid into the disaster medicine field.

One important point which belongs in the disaster medicine field is the ability to improvise hospital facilities. Where packaged disaster hospitals are still on hand (about 500 of the 2,000 which were once spotted around target areas are still around) they can and should be exploited. Where none exists other means of improvising must be used as best they can.

TRIAGE, TRANSPORTATION AND TREATMENT OF MULTIPLE CASUALTIES . . .

Another vital function peculiar to disaster medicine is that of field triage. A full understanding of its role and close attention to expert triage practice will contribute in large measure to a smooth-running disaster response operation and the saving of lives.

F.I.T. course certificates will be awarded to those completing the pilot seminar. The \$45 registration fee (\$50 after November 5th) applies to the pilot seminar only. Fees for later seminars must be adjusted realistically higher.

* * *

Reaching the Florida Institute of Technology by air poses no difficulty as its location, Melbourne on the Atlantic coast midway between Jacksonville and Miami, is served by several airlines.

For those who elect to drive, Melbourne is on Interstate 95, a main artery north and south connecting with numerous interstate highways from other parts of the United States and Canada.

Attractions within easy reach of Melbourne include over 50 prime show places which millions of tourists travel thousands of miles to visit. To mention a few: Cape Canaveral and Kennedy Space Center at Melbourne's front door, the world's finest beaches a few minutes east across the Indian River, Circus World, Sea World, Weeki Wachee, Disney World, St. Augustine, Busch Gardens, Daytona Beach, Palm Beach, the romantic Florida Keys and the 700 enchanting islands of

The Bahamas. Not to be overlooked is F.I.T. itself with its many technological programs, including En-

KENNEDY SPACE CENTER . . . THE WORLD'S FINEST BEACHES

gineering, Oceanography, Aeronautics and Space Science.

The weather is no real deterrent (a 70° average for January and 80° for July.)

* * *

Registration for the Division of Disaster Medicine's kickoff pilot seminar may be accomplished by completing and mailing the registration form on page 17. Further information on the pilot seminar and future courses may be obtained by writing the Division of Disaster Medicine, Medical Research Institute, F.I.T., 3325 W. New Haven Avenue, Melbourne, Florida 32901 or by calling the Medical Research Institute at 305-723-5640. □



Inviting stretch of Melbourne Beach, east of Florida Institute of Technology.

WHO IS MAX KLINGHOFFER?

Dr. Max Klinghoffer, Division Head of F.I.T.'s new Division of Disaster Medicine, has for four decades been an active leader among America's emergency physicians. His numerous disaster medicine assignments on medical society committees include long service with the American Medical Association's Committee on Disaster Care and Committee on Community Emergency Services.

He was director of O'Hare International Airport's Disaster Plan for 17 years (O'Hare is the world's busiest airport). For 16 years he was consultant to the Office of the Surgeon General. He has been in constant demand as an organizer and instructor in disaster medicine, including radio and TV productions.

A veteran and seriously wounded combat surgeon in World War II, Klinghoffer recovered to become proficient in judo and holds the coveted Black Belt. His many awards include the United States Public Health Service Award for Teaching Emergency and Disaster Care, the United States Civil Defense Council's "Pfizer Award" for "Service to the People of the United States" and a Presidential Citation for "Efforts in the Field of Emergency Preparedness."

Dr. Klinghoffer's popularity as a public speaker is legend. Among his writings are the *Disaster Manual for Hospitals* and the current series "Triage — Emergency Care" being run in the *Journal of Civil Defense* and to be published in book form in 1983.

Klinghoffer's vast experience, enthusiasm and unstoppable charisma combine to make him disaster medicine's "man of the hour."

TRIAGE — EMERGENCY CARE

IX RESUSCITATION/CPR — Part C

(9th of 13 installments)

Max Klinghoffer, M.D.

Should you have occasion to perform CPR on a patient, or if you practice on a mannequin, you will probably be surprised at the physical effort required. Even for those who are in good physical condition, the performance of CPR is fatiguing, especially in a one-man rescue procedure. If there are two competent rescuers present it is far better to use the two-man rescue. Should you be doing one-man rescue and a second individual *trained in CPR* arrives at the scene, there is an orderly way in which to change from one-man rescue to two-man rescue. **IMPORTANT:** unless the second individual is well trained in CPR, it is urgent that you continue single-man rescue, since the "cardio" and the "pulmonary" portions of the technique are equally important.

In the two-man rescue, one rescuer kneels beside the chest of the victim while the second rescuer kneels on the opposite side. The two rescuers immediately reach an agreement as to who will start rescue breathing and who will start rescue compression. In this method, the rates of compression and of breathing are changed, since neither rescuer has to pause in switching from one technique to the other. Again, the four initial respirations are quickly given, without allowing the lungs to fully deflate. Now the carotid pulse is checked. If there is a good carotid pulse, rescue breathing should be continued at a rate of about twelve times a minute; but the pulse should be checked constantly by the second rescuer to be certain there is not a cardiac arrest.

Should the victim require both cardiac compression and mouth-to-mouth respiration (as do the majority of such patients), and two rescuers are present, then the procedure is as follows: After the first four initial breaths and the check for carotid pulse, the rescuer who is doing cardiac compression does so at a rate of about sixty compressions a minute. This is best done by saying aloud: "one-one thousand; two-one thousand; three-one thousand; four-one thousand; five-one thousand; one-one thousand- etc." Saying this aloud helps

the breathing rescuer to time his portion of the routine. As the cardiac compressor says: "three-one thousand", the breathing rescuer takes a lungfull of air and brings his mouth in proximity to the mouth of the patient, at the same time sealing the patient's nostrils and tilting the head. At the time the cardiac compressor says: "five" — the breathing rescuer is now ready, with mouth sealed to mouth. As the cardiac compressor follows the "five" with "one thousand", the breathing rescuer inflates the lungs of the victim. Since the number (in this case "five") is the time of chest compression and since the "one-thousand" is the time at which compression is released, this means the breathing rescuer will not be attempting to inflate the lungs at the same instant the cardiac compressor is pressing on the chest and thus decreasing inflation.*

This rhythm continues at the rate of sixty compressions a minute and twelve respirations a minute, with a breath being given at every fifth compression. Since the breathing rescuer is "resting" between breaths, he may use this brief interval to check for carotid pulse and to loosen the victim's clothing where indicated. He may also utilize this time to place a call for additional assistance from a rescue squad, if a phone is within reach.

Since the effort of cardiac compression is greater than the work of rescue breathing, it is advisable to rotate positions from time to time. This is done without interruption of the rhythm by using a "code" instead of the numbers, at the time the cardiac compressor wishes to make the change-over. Having gone through the "one-one thousand etc." for a number of cycles and upon feeling fatigue, the cardiac compressor

now substitutes these words for the numbers: "change-on-three-NEXT-time". At this time, the rhythm of sixty beats per minute is so automatic that these words come out as a substitute for the numbers. To state it another way, here are the equivalents:

These Words Mean the Same as These Numbers

change —	one-one thousand
on —	two-one thousand
three —	three-one thousand
NEXT —	four-one thousand
time —	five-one thousand

The word "NEXT" is emphasized in order to make it clear to the breathing rescuer that he must be prepared, at the next cycle of five, to change from breathing rescuer to cardiac compressor. When the cardiac compressor says "time" (the equivalent of "five-one thousand"), the breathing rescuer gives the victim a full breath and then positions himself to take over compression. As the cardiac compressor says "three-one thousand", the rescue breather now places his hands on the chest wall and without interruption compresses the chest as he says "four-one thousand". At the same instant, the rescuer who had been doing compression moves toward the mouth of the victim, takes a full breath and seals his mouth to the victim's mouth. As the compressor says "five-one thousand", at the "one-thousand", the breathing rescuer gives a full breath.

When one-man rescue is being performed and a second rescuer offers to assist, the initial rescuer will usually know if the second one is qualified since the second one will not only state: "I know CPR. May I help?" But he will also place his finger tips on the victim's carotid pulse on one side. This will indicate his knowledge of CPR and will also assure both rescuers that the cardiac

*The question of the effect of increased pressure within the chest cavity is under consideration. There is a possibility that in the future at the time of the fifth cardiac compression the lung inflation will take place simultaneously with the cardiac compression.

compressions are effective — that is, there will be a palpable carotid pulsation with each compression.

When a second rescuer steps in, the rhythm of compression, which has been about eighty a minute for a one-man rescue, now becomes sixty a minute, since the cardiac compressor no longer has to interrupt his technique to breathe for the victim. The breathing rescuer gives one breath at the end of each "five", actually giving the breath at the "one thousand" after the "five". This will produce a ratio of 5 to 1 or 60 compressions to 12 breaths each minute.

In the case of small children, the amount of compression using both hands would be excessive and dangerous. For children up to age eight or ten (depending upon size) the use of the heel of one hand is sufficient. Similarly, in such children the rescuer's lungs should be inflated with air, but NOT OVER-INFLATED. In other words a half lung-full of air will suffice.

In the case of infants, compression is performed with just two fingers of the hand — the index and middle fingers. The breathing is done by just filling the rescuer's cheeks with air, and exhaling that amount into the baby's lungs. Since infants have a somewhat faster heart rate than adults, the rate of compression with the fingertips should be about eighty to one hundred per minute. The head tilt should not be as great in infants as it is in adults, since the airway is very flexible and excessive tilting may OBSTRUCT the airway. Since the baby's mouth and nose are small, it is necessary for the rescuer to cover BOTH MOUTH AND NOSE with his mouth.

Figure 1



MOUTH-TO-NOSE AND MOUTH

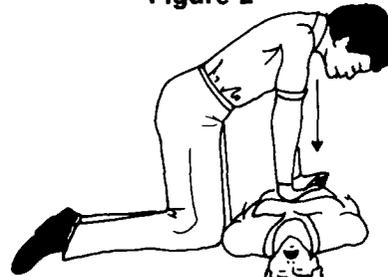
The relationship of the sternum and the heart is somewhat different in the infant. Therefore, in order to get satisfactory compression, the two fingers must be placed at a point about midway between the sternal

notch and the Xiphoid process.

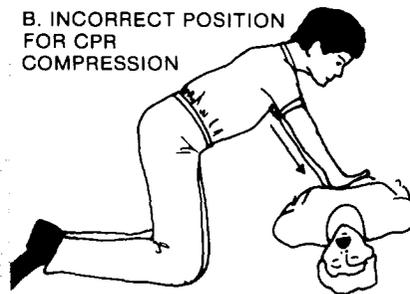
Since the Carotid arteries are so small in the infant, it is difficult to detect a pulse at that point. But the heartbeat may be felt at the apex of the heart, which is located at about the left nipple.

In performing CPR, the shoulders of the compressor should be directly above the center of the victim's chest. The pressure should be exerted by the weight of the rescuer's shoulders and not with the arms. In other words, the rescuer should "rock" forward with each compression, keeping the arms straight. This will not only give more efficient compression, but will also cause less fatigue. Pressure exerted from the side, at an angle, is not effective.

Figure 2



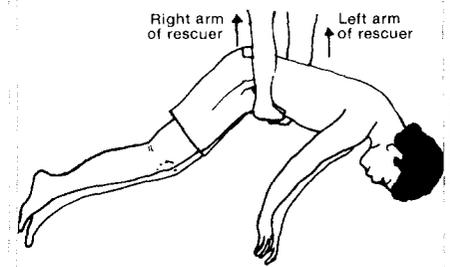
A. CORRECT POSITION FOR CPR COMPRESSION



B. INCORRECT POSITION FOR CPR COMPRESSION

In the case of the drowning victim, resuscitation should be started in the water. Since it is not possible to do cardiac compression in the water, mouth-to-mouth respiration should be started immediately. Thus, if the heart is still contracting (even though not strongly) supplying air to the lungs may be lifesaving and cardiac compression can be started as soon as the victim is out of the water. If the victim seems to have a great deal of water in his lungs, it is permissible to "break" the victim. This is done by placing him in a prone position (face down), placing the rescuer's arms about the victim's abdomen and lifting a few times. This may cause a great deal of water to pour from the victim's lungs. Then turn the patient over (face up) and IMMEDIATELY START CPR.

Figure 3

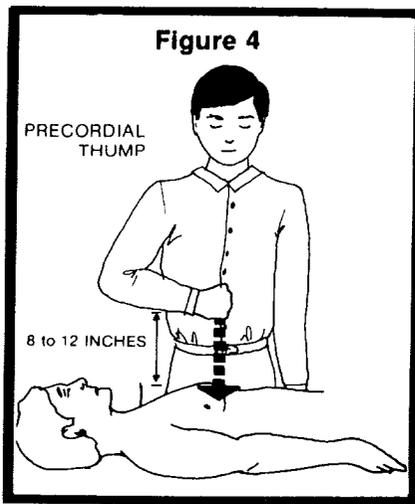


"BREAKING" THE VICTIM

So far, no mention has been made of the "precordial thump". This technique is not taught in most courses on resuscitation, probably because there is risk that the rescuer may tend to use the precordial thump as a substitute for CPR and thus expose the victim to greater risk. Nevertheless, the precordial thump does have a place in resuscitation.

The precordial (refers to the area over the heart) thump is simply a hard blow to the chest, administered over the body of the Sternum. In some cases, where cardiac arrest is only of a few seconds duration, this may start the heart beat again. Such cases are called "witnessed arrest", as contrasted with "non-witnessed arrest". This distinction is most important since, in the case of a witnessed arrest, the rescuer knows he may attempt the precordial thump within seconds of the onset of the episode. In an unwitnessed arrest, there is no reliable way in which the rescuer can know when the arrest occurred. Therefore, the precordial thump should NEVER be used in an unwitnessed arrest; first, it is very unlikely to produce heartbeat and second, it increases the delay before starting CPR.

Where the arrest is witnessed, the precordial thump may be applied by quickly turning the victim face up and striking a hard blow with the fist over the precordium. It is difficult to describe the force to be used, but a good approximation would be to say: "strike from about eight to twelve inches above the chest". Use the clenched fist, but use the arm and fist as a sort of hammer, with the little finger side of the fist contacting the chest wall. This should be done (if it is done at all) ONLY ONCE and the rescuer should be ready to IMMEDIATELY start CPR. This need is emphasized because 1. the precordial thump may not succeed in starting the heart and 2. even if the heart does begin to beat, it may falter — thus requiring CPR. The rescuer strikes the chest wall and immediately checks the Carotid pulse. If there is



no pulse, he immediately starts CPR. The time from the precordial thump, including pulse check, to the initiation of CPR should be about five seconds.

Again, it must be emphasized that reading about resuscitation or even watching a demonstration, is not enough to qualify for performing CPR. Supervised training with the use of a recording mannequin, is an *absolute must* for such qualification. Perhaps this is the place to list some of the most common errors in resuscitation.

1. The victim must be flat on his back and on a firm surface, in order that CPR be effective. A surface that "gives" will decrease the compression of the ventricles of the heart.

2. The most common cause of failure to get air into the airway is obstruction by the tongue. This in turn, is most often caused by insufficient head tilt (or jaw thrust, in the case of suspected neck injury). But remember that the infant has a slightly different anatomy than the adult and the head should not be tilted quite as much.

3. Failure to seal mouth-to-mouth or failure to completely seal the nostrils of the victim, will cause leakage of air and failure to inflate the lungs.

4. The Carotid pulse must be checked after the initial four breaths before starting CPR. If there is a good pulse, CPR should not be started at this time but rescue breathing should continue and the pulse constantly rechecked.

5. The location of the hands on the chest wall is critical. In the adult, the heel of the hand should be about three fingers above the Xiphoid process. In the infant, the two fingers used for compression should be at the middle of the body of the sternum.

6. The compressions must be sufficient to cause pressure on the ventricles and thus produce circula-

tion. Upon release of each compression (ALL PRESSURE MUST BE REMOVED FROM THE CHEST WALL, IN ORDER THAT THE HEART MAY REFILL) the heel of the hand REMAINS IN CONSTANT CONTACT WITH THE CHEST WALL. If the hand is lifted from the chest wall, there is increased danger of injury when pressure is re-applied.

7. The count of compressions should be done aloud. This not only helps the single rescuer to establish a rhythm, but also is a necessary guide for a second rescuer to apply mouth-to-mouth breathing at the right instant.

8. There is some tendency for the cardiac compressor to pause after the fifth compression, to allow the rescue breather to inflate the victim's lungs. This is incorrect. The cardiac compressor should continue his rhythm in cycles of five without pause and at the rate of sixty per minute (in the two man rescue). It is the responsibility of the second rescuer to get air into the victim's lungs just at the moment the cardiac compressor relaxes pressure on the chest. At the instant the cardiac compressor says "one-thousand" immediately following "five".

9. In the change of rescue positions, the change is made during the cycle of counts AFTER the cardiac compressor says: "change-on-three-NEXT-time". At the end of the word "time", the rescue breather inflates the patient's lungs and immediately gets into position to do compression. Now when the cardiac compressor says "three-one thousand", his place is taken by THE INDIVIDUAL WHO HAS BEEN DOING RESCUE BREATHING, who then says: "four-one thousand" as he compresses the chest WITHOUT A BREAK IN RHYTHM. Meanwhile, the individual who had been doing cardiac compression takes a position near the head of the victim and is ready to give a lungfull of air after the fifth compression.

10. The amount of air used for the average adult is a deep lungfull on the part of the rescuer. For a child, the amount is an average breath. For an infant, the amount is that amount of air which can be held in the cheeks of the rescuer.

11. Rescue efforts should not cease too early (although it is true that the MAJORITY of victims will show some signs of life within the first twenty or thirty minutes of rescue effort. Occasionally, patients are revived after more than two hours of rescue effort. This is especially true in younger patients and in victims who have been submerged in cold water, or who have suffered hypothermia due to other causes.

12. While the great majority of obstruction to respiration is caused by position of the head and neck, occasionally the cause is a foreign body in the airway. In such as case (where appropriate head-tilt or jaw thrust have failed) the hooked index finger should be used to "scoop" out the foreign matter. CAUTION: AVOID PUSHING FOREIGN MATTER FURTHER INTO THE AIRWAY.

13. In the patient requiring resuscitation, when rescue breathing ceases, no more oxygen gets into the lungs (thus into the blood and tissues) and when cardiac compression ceases, blood stops circulating. Therefore, interruption of rescue breathing or cardiac compression is to be kept at an absolute minimum. It is usually better to await the arrival of another person, rather than for the single rescuer to try to telephone for a rescue squad. During the time required to telephone for help, the patient may die.

14. If the patient must be transported to any other location, CPR must be continued during transport, as efficiently as possible.

15. Should the victim vomit or should the mouth become filled with blood or mucous, quickly turn the head to one side (except in case of suspected neck injury) and use the hooked index finger to "scoop" out the obstruction. In the case of suspected neck injury, follow the same procedure, but without turning the head. While this removal of obstruction is necessary, remember that it also represents an interruption of CPR. Therefore, resume CPR immediately after the obstruction is removed.

16. The need for CPR IMMEDIATELY is so great, that the rescuer should not attempt to move the victim to a "more comfortable" place. There are exceptions to this. It is necessary to move the victim, as quickly as possible, under the following circumstances:

1. proximity to an electric wire, endangering the patient or the rescuer.

2. the presence of noxious, poisonous, or explosive gases.

3. fire or danger of fire.

4. danger of explosion.

5. during rescue from water (rescue breathing may be started while still in the water but cardiac compression is not practical under these conditions).

6. in a structure which seems to be in imminent danger of collapse.

7. for any other reason where it may be hazardous to victim and/or rescuer to administer CPR at a given location. □

NEXT INSTALLMENT: CHOKING

The popular assumption that the Physicians for Social Responsibility represents the medical profession as a whole is of course erroneous. It does nothing of the sort. Here a California emergency physician punches some gaping holes in today's "nuclear nihilism."

DOCTOR TO DOCTOR

(Excerpts of a letter from Dr. Gerald L. Looney, Medical Director, Emergency Department, Glendale Adventis Medical Center, Glendale, California and Assistant Professor of Emergency Medicine at the University of Southern California School of Medicine to Dr. Max Klinghoffer, Division Head, Division of Disaster Medicine, Florida Institute of Technology.)

Dear Max:

Last month I read with delight your views on nuclear disaster preparedness in *Medical Tribune* and your observation, "I maintain that there is no disaster so great, that would have so many casualties, that the medical profession is not obliged to take care of survivors." Since you are the only physician I have seen quoted in print endorsing preparation and planning and since you are also one of the most prominent people I know in Civil Defense, I am writing to share some of my own concerns and concepts.

One of my major concerns is the nuclear nihilism which seems to have reached epidemic proportions among physicians and hospitals. We have developed a knee-jerk reaction in response to the mention of nuclear war, using our central nervous system for purely motor reflex activity while suppressing forebrain function for a rational consideration of critical new factors. The public press, or at least its editorial and medical spokesmen, now impugn the intellect if not the integrity of anyone who dares disagree with popular opinion and mass demonstrations. It's as if hyperbole has become the norm and public opinion now decrees that the "normal" response to anything nuclear is an immediate reflexive thumbs-down palmar flexion, while a raised hand to support civil defense or the Civilian-Military Contingency Hospital System (CMCHS) is as pathologic as a raised toe in a positive BABINSKI reflex. Here in California, I feel like the proverbial sore thumb when I vote to work with the Pentagon while all five of the teaching hospitals in the University of California system have ruled against CMCHS and several Catholic Hospitals have refused to participate because that "would be tacit approval to prepare for nuclear war." Nationally, several physician groups, including the American College of Physicians and the Physicians for Social Responsibility, have decided that Civil Defense is worse than nothing. They argue vehemently that they have all the answers and that the only possible national defense against nuclear attack is prevention. However, their main argument is a series of frightening scenarios of death and destruction to support their three basic assumptions: First, that nuclear war can be prevented permanently in all parts of the world by good intentions and deeds in this part of the world; Second, that if nuclear war cannot be prevented, there is no other nuclear defense available; Third, that the explosion of a single nuclear bomb from any source will inevitably and absolutely trigger the launch of every American and Russian missile. I feel that these assumptions are open to serious question and should be the subject of serious scientific scrutiny because if even one of the assumptions is in error, then their whole thesis is invalid and we could make one of the most tragic mistakes in the history of Medicine if we blindly follow their advice.

I myself have used the technique of slow-motion scenarios to describe the split-second demise of automobile occupants who sustain punctured lungs and shattered skulls from high speed impact, but neither the public, the media, or the medical profession became concerned over trauma and automobile accidents as a public health problem, despite the fact that trauma is the leading cause of death under age 37 and that automobile accidents have killed more Americans than all of the combined wars in the history of our nation. There was little or no interest from the medical profession, not even from the Physicians for Social Responsibility, in dealing with this acknowledged and on-going epidemic of traumatic deaths, and there were no public demonstrations to "ban the Buick". Likewise, I am sure that automobiles since World War II have killed more Japanese than died in the nuclear explosions of 1945, but I have heard of no "ban the Honda" demonstrations in Japan. When examined from a medical perspective, I can find no physiologic or psychologic differences between instant death in a nuclear attack, the somewhat slower incineration of a firestorm or napalm in a conventional attack, or the non-military demise of citizens in burning buildings or cars. I do not mean to sound calloused and unconcerned about nuclear war casualties and radioactive fall-out, because I truly find that possibility as frightening as anything I can imagine. But, from what I

have heard and read, the death and destruction of firestorms from conventional bombs in Hamburg and Dresden matched the horror from atomic bombs several months later in Heroshima and Nagasaki, and we today recount and recant only the nuclear horrors. Nuclear war does not have a monopoly on agony and atrocity, so we need more than scary scenarios in discussing the pros and cons of national policies.

Society in general and medicine in particular seem to have decided to apply an ancient dictum to nuclear energy and nuclear war in modern society: "Ignore it and maybe it will go away." I truly would like to see the hazard of nuclear fission disappear, but I think the risk is more likely to grow if it is ignored. Somehow, we have to find a

. . . WE NEED MORE THAN SCARY SCENARIOS . . .

democratic forum for debate and discussion of dissenting opinions regarding nuclear preparedness, and therefore, I am submitting my views for your consideration and to let you know that not all physicians regard civil defense as un-American or even anti-Russian.

Some physicians have developed such a phobia and fixation about Russia's nuclear arsenal that they now suffer from tunnel vision and are unable to acknowledge that this nation has virtually no nuclear military defense and is now at more risk from the whims of a dozen dictators or the decisions of a military junta than we were from the votes of the Soviet Politburo. We are still acting out a script written more than 30 years ago when the only nuclear weapons in the entire world were the exclusive property of two major nations. Now, when the nuclear club has mushroomed with new and potential members, when even minor and sometimes irresponsible nations have access to weapons-grade plutonium, we still act as if the first act in our post-World War II play is an American soliloquy, the second act a US-USSR dialogue, and we refuse to acknowledge that the curtain has already risen for the third act on a stage crowded with players and surrounded by members of the audience clamoring to join the cast.

It seems obvious that the chance of an all-out nuclear war with Russia is becoming less likely than the steadily increasing future threat of nuclear attack from a nation possessing only a few nuclear weapons or a group of terrorists armed with only one or two stolen or contrived nuclear devices or in control of a captured or crippled nuclear reactor. In such a revised scenario, for physicians to actually advocate and support a deliberate lack of

I DO NOT FIND IT SINFUL OR WRONG TO PLAN FOR SAVING LIVES . . .

nuclear preparedness seems not only unprofessional and a defiance of the Hippocratic oath, in blunt terms it suggests malpractice and perhaps even criminal negligence.

In any case, even if we could be sure that total nuclear war would lead to the annihilation of human life as we know it, I am not prepared to write off any and all defense attempts as useless, or as dangerous and more likely to provoke Armageddon than doing nothing. If we wait unprepared and then find that a limited nuclear *does* occur without a total holocaust, then we must anticipate maximal casualties from minimal or no protection of the exposed population, and medical spokesmen advocating no Civil Defense would have to assume maximal blame for all deaths which might have been prevented if there had been adequate preparation and planning. Decreasing the mortality and morbidity by only a few percentage points in this type of epidemic would make a difference to thousands of people, and I firmly believe that the number of peripheral survivors could be doubled with a rudimentary but organized civil defense system. Even if this nuclear exchange does represent "the greatest health hazard of all time, mankind's last epidemic," I do not find it "futile even to think of developing approaches to medical care for nuclear war victims." I do not find it sinful or wrong to plan for saving lives and reducing morbidity in any kind of epidemic.

Gerald L. Looney, M.D.

The so-called "Physicians for Social Responsibility" are, in fact, highly irresponsible. The only way to prevent war is for America to regain its nuclear strength so that the Soviets will not be tempted to strike. The actions of the doves, of the people of peace, will cause war, not prevent war . . .

In America, physicians can perform a great public service by taking the lead in building a national civil defense . . .

Our "nuclearphobia" affects medicine directly. Since 1945, the number of people killed by radiation can be counted in the dozens; the number killed because of lack of radiation diagnosis and treatment in say, cancer, can be counted in the hundreds of thousands and may be the millions. This is an example of how misinformation about radiation can scare. People are scared to use something that can save their lives.

More importantly, physicians can act and counteract the misinformation. If the anti-nuclear forces hold back nuclear energy, we will become dangerously dependent upon oil from areas like the Persian Gulf. If America is not cured of its neurosis that a nuclear war is "unthinkable," then a nuclear war is "fairly probable." If the peaceniks succeed in freezing American arms, then a nuclear war is a "practical certainty." . . .

To prevent a nuclear war, we must think.

— Edward Teller in the *American Medical News*

Disasters strike local communities, not the state or federal levels. Roger Herman, with hard-nosed management experience to back him up, claims relying on upper echelons to "mother" locals through emergencies is dangerous and irresponsible.

— Roger E. Herman

Circumspect citizens are becoming increasingly aware of the lack of serious disaster planning in this country. Throughout the United States, people are now realizing that we aren't ready for natural disasters, technological disasters, or actions by unfriendly countries. When the finger-pointing starts, we look to the federal government to assume the responsibility for planning and preparedness. We recognize that there are some responsibilities that logically belong at the federal level; however, if improved readiness is to be achieved, more emphasis must be focused at the state and local levels.

The reorganization of federal government agencies with emergency management concerns marks a big step forward. The staff at the Federal Emergency Management Agency (FEMA) has awareness, expertise, support, ability, power, and a limited budget. Recognizing the strength of all these assets, the majority of Americans have become complacent. "Let FEMA do it" is the perceived attitude among state and local officials who expect the feds, like a knight in shining armor, to rush in to protect or rescue them from the effects of any kind of serious disaster.

The result of this delusion is that planning and preparedness at the state and local level is insufficient. While many states have good emergency preparedness programs, this

level of government is caught in the middle. The state is not the "ultimate agency" in disaster response: FEMA is waiting in the wings. There is a feeling of security that if problems become too serious or overwhelming, the federal government will respond in a highly organized fashion with unlimited resources to practically relieve the state of responsibility. At the same time, the state does not have the authority or capability of direct response to disasters when they occur. The local government has a very important role to play . . . it's a job that can not be left to the state to assume.



*Roger E. Herman, a former city manager and disaster services director, Mr. Herman is the author of **Disaster Planning for Local Government**, published by Universe Books in June 1982. The book is available from the publisher at 381 Park Avenue South, New York, New York 10016 for \$16.50 postpaid.*

The Foundation of Preparedness

The primary accountability for planning, preparedness, and response to disasters and other serious emergencies, then, must rest with the local government. The municipal or county government responsibility can not be abdicated. To assume that the state or federal governments will always be handy to solve local problems is to live with a dangerous false sense of security. Outside aid should not be relied upon for initial or secondary response . . . and may not be available at all in the aftermath of an enemy attack.

Regardless of the intensity or impact of a disaster agent upon a community, the local government remains responsible. The officials of the local government are in charge. If help is needed from the county, state, or federal governments, it must be requested by, and coordinated by, local government.

Local officials must be prepared for their initial response. If help is needed, they must know how to obtain the appropriate assistance from surrounding communities. That secondary response must be adequately coordinated, by the same local officials, to assure maximum effective application of available resources. If more help is needed, the local officials must know specifically what kind of support is required and how to request it.

The state emergency preparedness agency becomes involved when the local governments can not handle the problems — even with help from their neighbors. The state's role is to respond to the needs articulated by the local officials. Once they have been called upon, the state organization can provide advice and counsel to the local officials. With wider expertise and experience to draw upon, the state officials can help the local leaders better assess their situation. If the impact is beyond even the scope of state resources, FEMA and the strength of the entire federal government establishment is available to provide the depth of support needed for proper response and recovery. The responsibility, however, still rests with the local government.

The Weakest Link

Unfortunately, the most important link in the chain of emergency preparedness is also the weakest link. The level of readiness among governments in this country is woefully inadequate. The deficiency can be

overcome, but the needed improvements won't just happen by themselves. Impetus must come from concerned citizens who can communicate with responsible local government officials and motivate them to devote the necessary time, attention, and resources to strengthening local preparedness. Local leaders must be dedicated to the goal of increased readiness.

Before anything will happen, local government leaders — mayors,

LOCAL GOVERNMENT LEADERS ... MUST RECOGNIZE THEIR RESPONSIBILITY.

council members, county commissioners — must recognize their responsibility. They must understand that each community must meet the challenge of preparedness; reliance on the "big brothers" of state and federal agencies is not the answer. There must be a local commitment to emergency planning and preparedness — this concern should be given a high priority in municipal and county government. This attitude must be communi-

cated to the government staff assigned the administrative responsibility for improving the local posture.

Next there must be knowledge of what needs to be done. Planning and preparation are the two key elements. They are separate and distinct; neither is wholly adequate by itself. A comprehensive, current emergency operations plan is a necessary tool. Preparedness means staffing, training, equipping, and supplying the organizations responsible for response management. Preparedness and Planning must be closely coordinated so that the Plan is viable — and can be easily implemented when the community is faced with a serious emergency.

The challenge of strong readiness on the part of all local governments won't happen overnight. However, there are interim benefits from any planning or preparedness activities that are undertaken. Every incremental bit of improvement that is realized does a little more to strengthen the readiness posture of the community, its state, and the nation. Let's begin today. □

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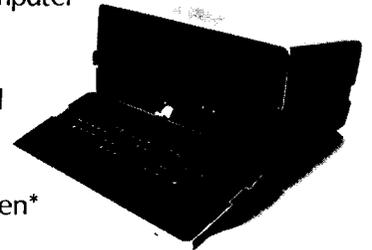
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REVIEWS

Survival in Emergency (Survival in Emergency), by Werner Heierli. Published by Verlag Vogt-Schild AG, Dornacherstrasse 39, 4501 Soloturn, Switzerland. 1982, 127 pp., 16.80 Swiss francs, postage included. (18.80 Swiss francs for air mail postage) In German with English summary.

Reviewed by Kevin Kilpatrick

Dr. Werner Heierli gives the serious student of civil defense an authoritative study on reactions of populations to bombing attacks. *Überleben im Ernstfall* is primarily about the proper utilization of shelter for attack survival.

In a number of ways the book is an eye-opener and a guide to those who would take the trouble to organize groups for life in shelter. Heierli paints no rosy picture. He uses World War II urban shelter experiences in England and Germany and notes that survival in these cases was directly proportionate to advance preparations made to protect the population. Where preparations were lax casualties were high. Where they were cultivated casualties were remarkably low.

One example he uses is that of 10,000 people jammed nightly into the basement of a huge London warehouse. Conditions were brutal. Facilities were so inadequate that urinating on the floor was common practice. Yet morale was high because those in the shelter had a goal: survival. They accepted hardships willingly. They accepted the bombs. One of them was inspired to write an "Ode to Hitler." It read:

We are a little frightened, we who have
been happy,
We are not frightened enough to
become what you want.
We set our will against yours, the will
of London,
If you kill us, we only die.
Some day the story will end, the
book be shut forever.
Sleep will be sweet again.

Fear, says Heierli, is natural. It steels us against danger as long as it is controlled. Information on what is happening is important. Firm shelter leadership is important. Meaningful government leadership is important. "Through concentration on one overall goal danger will awaken strength in men they never believed themselves capable of."

Voluntary evacuation under attack conditions is a rarity. "Man seeks security within the framework of his familiar surroundings, within his community."

Überleben im Ernstfall is a contribution to civil defense literature that needs to be studied by professionals, to be analyzed and to be applied to survival planning. It is another practical (and well-illustrated, by the way) Swiss viewpoint. It is a positive approach that spells out the practicability of survival for those who opt for it.

Above all, it needs to be translated into English.

How to Build an Air Shelter (How to Build an Air Shelter), by Mary Ellen Clayton with Bruce Clayton, Ph.D. Published by Paladin Press. Available from Clayton Survival Services, P.O. Box 1411, Mariposa, CA 95338-1411. \$12.95.

Reviewed by R. F. Blodgett

This is a nice little book for the individuals and families who are thinking about beginning a modest preparedness effort. Though it appears to be a bit on the cutsey side of the hard core survivalist movement with its juvenile chapter titles, there are some good ideas in its very broad-brush treatment of the subject. I am, however, concerned with some of the lack of specificity and accuracy in some of the areas covered.

In the chapter on water a person new to the subject could either grossly misinterpret what adding a "little bleach" to stored drinking water might mean or have to search other places to find that particular information. Further, the remark that "The residual bleach will probably prevent any algal or bacterial growth." strikes me as being irresponsible and unprofessional. Obviously, discovering in the middle of a disaster whether it purified the water or not could prove to be slightly disconcerting.

The chapter on food also seems to be rather casual in its recommendations. After extolling the benefits of storing the "basic four" including wheat, dried milk, honey and salt; we then find that wheat is not a complete protein and should be supplemented with other forms of protein. Since this sort of advice could well be critical to survival I really think that

the author should have been more exact in presenting this sort of information. In fact maybe only the advice of trained nutritionists should be followed or allowed to explain the details of survival diets that do not come "off the shelf". There isn't any room for "maybe" or "probably". Frankly, I have always thought that this was a tested and accepted type of food storage long used by the Mormons without any problems. I now have my doubts.

While there are some other miscellaneous points of contention, the book does contain some handy checklists and offers a range of equipment and supply choices based upon some attempt at research and use. It does, after all, promote preparedness and thereby makes a contribution to the cause.

Nuclear War Survival, by James Fallows. Published by Vantage Books, Random House. 194 pp., \$4.95.

Reviewed by R. F. Blodgett

While not exactly a book about civil defense, it should pique the interest of anyone concerned with preparedness. This, obviously then, includes emergency planners at every level. The tragic comedies of error described in the developmental processes of the F-15 versus the F-14 and 16, the XM-1 tank versus the Sherman, the Sidewinder versus the Sparrow and Phoenix air-to-air missiles, the M-14 versus the AR-15 rifle and so on through much of the military inventory could cause us all to lose faith in the system.

In several places the author touches the nuclear situation. He says that "if every discussion about nuclear weapons began with the statement that no one really (emphasis by reviewer) knows what he's talking about, we would have come a long way toward a more balanced perspective on these weapons". Then he proves it.

Nuclear damage estimates have been extrapolated but presented as facts, not a single target trajectory has ever been flight tested, so-called "fratricide" may negate everything following the EMP of the first detonation and the final irony; he claims that not one of our Minutemen has ever been successfully fired from an operational launch silo. Maybe nothing will work.

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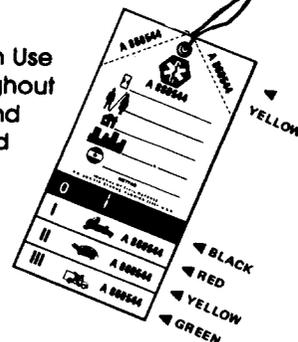
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CIVIL DEFENSE FIASCO

There has been so much propaganda and misinformation about civil defense in the United States in recent days that it would turn the stomach of any reasonable observer, and the *Digest* staff is tired of such tummy-aches. Here, then, is the *Digest* version of what the flap is all about:

- A number of people, whom we will charitably characterize as "Liberal", have suddenly discovered that nuclear war offers a threat to their way of life, and have mounted a well-financed media campaign to scare everybody else. In this, they have been joined by large numbers of frightened people who have seized on a nuclear freeze and the "utter hopelessness of it all" as the *only* considerations for future US policies.

It is beyond question that the Soviet Union encourages and supports this movement in the West, yet prevents its expression within the Soviet Bloc.

- US Administrations for 3 decades have virtually ignored any realistic national defense systems against enemy bombers and missiles, choosing instead to spend vast sums for offensive weapon systems of dubious value and "civil defense" boondoggles which are foolish "evacuation" paper exercises.

Unfortunately, these government "defense" measures allow advocates of weapon freezes and disarmament to yell about how useless all civil defense measures are.

If anyone doubts the "peace" movement has little interest in realistic national defense, consider the reaction of such peaceniks to the hypothetical situation of a new defense system which provides an impenetrable shell over US cities or even the nation. Such a system would prevent the entry of any enemy missiles into US airspace, absolutely preventing incoming missile attacks from reaching our territory.

Almost without exception, members of the "peace" or disarmament movement will reject the idea of installing such a system! Try it — you'll discover just how inconsistent their arguments really are!

Their problem, of course, is that they really can't advocate installation of such a defense system, because such a defense is very nearly feasible today for a large part of the US population. Our technology has permitted the construction of effective antiballistic missile (ABM) systems for well over a decade, and individual civil defense measures (such as the Swiss have developed) would provide enormous protection for most people in areas hit by the few missiles which might penetrate our earlier, scattered ABM installations.

The truth is that we have been, and are, deliberately, consciously preventing ourselves from building such systems under the 1972 SALT II ABM Treaty!

The point is that true national defense against missile and nuclear bomb attacks is possible, feasible, already demonstrated, and far less expensive than present offensive system expenditures! Once this is realized, the question must be asked, "Why aren't we proceeding with such measures on a crash basis?"

That is the question we must ask our Representatives, Senators, and President.

— *Daily News Digest*

SHELTER COMPANIES, CONSULTANTS AND SURVIVAL COMMUNITIES

(The following lists are prepared as a service to *Journal of Civil Defense* readers. It will be developed further and republished at appropriate intervals. The listing of a company implies no judgment or rating of that company. It would be appreciated by the Journal if information on shelter and shelter equipment companies not shown here could be submitted.)

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Newbury Park, CA 91360
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Grayco Specialists Tank Mfg.
P.O. Box 10007
Ft. Worth, TX 76114
817/237-1262

International Survival Systems, Inc.
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Canada V5N 5L4
604/687-7711 pager 3586

Stormaster Shelter Company (Texas Area)
7318 Ferguson Road
Dallas, Texas 75228
214/286-6844

The Survival Center
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Ravenna, OH 44266
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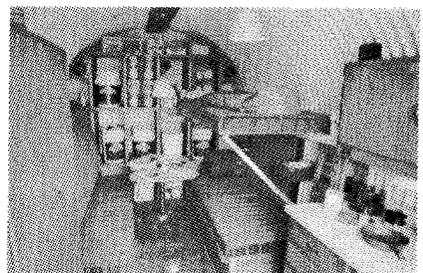
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Former FEMA executive George N. Sisson addresses the American Society of Civil Engineers October 26th on the subject "Mines and Caves for Civil Defense." The luncheon program will take place at the Arlington Temple, 1835 N. Nash St., Rosslyn, Virginia. For information



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contact: Reed J. Petersen, Sec'y-Treas, 6903 Heidelberg Rd., Lanham, Md. 20706 (\$6 check due by Oct. 21). The meeting is open to the public.

Among the significant facts Sisson will discuss are (1) that twice the

population of the U.S. could be accommodated in the country's mines and caves and (2) that one mine is big enough for all New York (but not quite handy enough). Mines and caves, however, are heavy shelter assets.



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| Oct 10 | Disaster Control Seminar, Venice, FL — Reg. Fee \$35 (Contact: Safety Systems, Inc., PO Box 8463, Jacksonville, FL 32239 — 904/725-3044) |
| Oct 10-14 | Annual USCDC Conf., Portland OR (Contact: Myra Lee, Em. Mgmt. Dir., 12240 N.E. Glisan, Portland, OR 97230. Tel. 503/255-3600 ext. 207) |
| Oct 20-24 | EMERGENCY 82 (International Exhibition for Emergency Preparedness) — Geneva, Switzerland (Contact: Mack-Brooks, Ltd., 62 Victoria St., St. Albans, England AL1 3XT.) |
| Oct 23 | Disaster Control Seminar, Claremore/Rogers State College, Claremore, OK. Reg. Fee \$35 (Contact: Safety Systems, Inc., PO Box 8463, Jacksonville, FL 32239 — 904/725-3044) |
| Nov 3-4 | Emergency Preparedness Conf. at the Mobile Hilton. Reg. \$50 by Oct. 15th (Contact: Mobile County CD, 348 N. McGregor Ave., Mobile, AL 36608 — 205/460-8000) |
| Nov 9-12 | Underground Excavation Symposium, Brazil (Contact: a/c Dr. Sergio A.B. da Fontoura, Dept. de Eng. Civil — PUC/RJ, Rua Marques de Sao Vicente 225, Gavea — Rio de Janeiro — RJ, Brazil) |
| Nov 12-14 | TACDA-Florida Institute of Technology (F.I.T.) pilot EMERGENCY MEDICAL SEMINAR at F.I.T. campus, Melbourne, FL. (Contact F.I.T. 305/723-5640 or TACDA 904/964-5397.) |
| Nov 14-18 | American Nuclear Society Winter Meeting, Washington, DC (Contact: Chs. F. Jones, NUS Corp., 910 Clopper Rd., Gaithersburg, MD 20878 — 301/258-6000.) |
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LATELINE

IF "LATELINE" THIS ISSUE reads like a rehash of our editorial on the back cover ("The Star-Spangled Glass Jaw") so be it. The hour is late. The CD/survival situation is critical. Corrective action is overdue, lagging, lethargic.

CIVIL DEFENSE FOCI at TACDA and USCDC conferences (October 7-9 and 11-14 respectively) must play on upcoming elections November 3rd and candidates' home defense voting records and commitments. The CD act must be pulled together.

BACKGROUND FOR FRESH, FORTHRIGHT ACTION is the fact that, shown by polls, 80% to 95% of U. S. voters are in favor of nuclear attack protective measures.

FURTHER BACKGROUND is the conviction by serious students of defense that such home defense preparedness works NOT for reckless foreign policy and war by peace-oriented nations — as CD opponents would have us believe — but for making war as remote as possible. Target dilution DISCOURAGES the aggressor.

LONG-STANDING QUESTIONS NEED NO-NONSENSE ANSWERS. One is: Why would a nation like the United States deliberately over the past three decades invest billions in providing sophisticated protection for government and military (deep, fortified bunkers, etc.) and nonchalantly turn its back on meaningful measures for those it is primarily responsible for — its citizens? What will political candidates do to see that the communities and homes of their constituents, those who put them into office, are provided with known measures to protect them?

BEING PATERNALLY "FOR" a civil defense not specifically defined is not enough. Congressman Edward P. Boland, for instance, who has repeatedly said that his HUD/Independent Offices Subcommittee believes "an increased civil defense is important" repeatedly fails to pin down what his subcommittee recommends as program specifics. And this is the very subcommittee which garroted the FEMA budget that was passed so decisively by the U. S. House of Representatives.

FURTHER BAD NEWS is that Congressmen Donald J. Mitchell (R-NY) and Jack Brinkley (D-GA), two staunch, consistent, vocal civil defense supporters in the U. S. House of Representatives, are not seeking reelection.

AND THE GOOD NEWS: Maybe all the bad news will bring us together. Maybe ASDA, ASPEP, NEMA, TACDA, USCDC and others will exploit a trend already started to talk, plan and act in unison. That could save the day for American preparedness and nuclear peace.

MORALITY IN GOVERNMENT

Silent steel doors — like a scene from science fiction — lead into an outsized buried complex. They shut behind you. Deeper silence. The sleek subdivided space spread before you is encased in a heavy jacket of reinforced concrete. Utilities, clocks, furnishings are shock-mounted. Systems are redundant. Special valves protect ventilation shafts and pipes. Supplied with its own food, its own water, its own power, its own accommodations, its own fuel — completely independent of outside help — it can be a sealed-off "home" to a select group for two to four weeks. This in a brutal, close-in nuclear attack environment.

Is this protective shelter that government has built for people?

No. It is shelter that government has built for *government*. One of many.

Well, you might ask, where are the shelters government has built for people?

And the answer is simply that government does not build shelter like this for people . . .

What is the rationale that permits government to take taxpayer money to protect itself and to ignore the taxpayer? What moral code allows leadership to condone this protection for itself and exposure to death for those whom it serves? . . .

— Excerpt from "Let There Be Truth," by Frank Williams (JCD, Jan.-Feb. 1978)

EDITORIAL . . .

Madison Avenue public relations techniques are legend. Even communist propaganda is based on them. Doll up and market an idea with cleverness and persistence, and it matters little whether the idea is good or goofie — people will accept it, especially unhappy people. Once accepted it's suicide to give it back. Lenin over sixty years ago said that an incredibly naive America would willingly provide the rope with which it could be strung up. Nikita Krushchev said it another way: "We'll bury you." Aleksandr Solzhenitsyn observes that a sugar-coated word now expresses the same idea: "détente." And so on. "Better Red than Dead" is a phoney and lethal catch phrase as "Not a Cough in a Carload." Moreso. The former can cost us our country, the latter only our lives.

Evidence of the Madison Avenue approach by propagandists is subtle, but perhaps it includes:

- a. A vicious debate on crisis relocation vs in-place shelter. CD enemies have joined the fray. Hyperbole holds sway. The idea that both are needed and that dialogue and compromise may be in order is just now beginning to surface.
- b. Recurrent focus on lesser more manageable disasters.
- c. CD organizations at odds with one another and incapable of joint action.
- d. The participation of the media in irresponsible accounts of the nuclear danger; attacks on peaceful uses of nuclear energy.
- e. Deplorably low levels of local civil defense standards and pay scales.
- f. A fractionized FEMA hamstrung with Carter carry-overs (like the Department of State and other federal entities) and inept political appointees. Leadership is stymied. The Reagan platform mandate to provide the people with a civil defense at least equal to that of the Soviets has been shot full of holes. Could a housecleaning be in order?
- g. Another proposed name change for federal civil defense — this time to "Civil Disaster Agency." Frequent name changes and their unbelievable proliferation down through states and locals makes the Tower of Babel look like a child's problem.

In this way civil defense is sabotaged, lost.

With the apparent dumping of the modest FEMA budget increase for FY83 the feeling is that, like Pogo of Okefinokee Swamp fame, we have "snatched defeat from the jaws of victory." As a nation we have again refused to turn our attention to known methods of combat protection for our families. We have again guaranteed their vulnerability. We have provided for our country a road to surrender via nuclear blackmail or war. We have in effect endowed America with a "star-spangled glass jaw." No American president is going to prevail in international crisis when two-thirds of his people, due to government nonfeasance, can be annihilated.

* * * * *

Maybe this gives civil defense buffs a rallying point. Maybe instead of a CRP vs in-place shelter battle there is room for balancing the good and bad points of both and utilizing a combination. The study of the Los Angeles CD agony (see page 9) would seem to point that way. It gracefully avoids arrogance and ridicule while highlighting its dilemma. A proposal something akin to this will be made by General E. D. Woellner at TACDA's October seminar.

Anyway, we need to brush away some cobwebs, see clearly, talk together, plan together and come up with a CD strategy and a CD equation that will do for our people what other countries have done for their peoples — and what our government has done for our VIPs. We need Madison Avenue on *our* side, the survival side.

Most of all — as the Los Angeles study emphasizes — we need an inspired demonstration of federal leadership.

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